Cube

2nd Generation

User Guide

3D Printer

TABLE OF CONTENT

INTRODUCTION 4
COPYRIGHT 5
IMPORTANT SAFETY INFORMATION 6-13
Safety Guidelines 6-13
Cube 3D PRINTER FEATURES AND BENEFITS 14
Cube 3D Printer Features 14
Cube 3D Printer Properties 14
AT A GLANCE 15
REQUIREMENTS FOR YOUR Cube 16
Wireless Options 16
Non-Wireless Option 16
Software 16
PC Requirements 16
Electrical Requirements 16
Material Storage 16
Operating Environment 16
Cube Weight & Dimensions 16
Space Requirement 16
UNPACKING AND SETTING UP THE Cube 17-19
ACTIVATE YOUR CUBE IN CUBIFY.COM 19-20
UNLOCK YOUR Cube 20-21
DOWNLOAD AND INSTALL CUBIFY SOFTWARE (WINDOWS) 22-23
DOWNLOAD AND INSTALL CUBIFY SOFTWARE (MAC OSX) 24-25
DOWNLOAD YOUR FREE CREATIONS 26
CUBIFY SOFTWARE OVERVIEW 27-30
Key File Types 27
WI-FI SET-UP 31
Set up a computer (ad hoc) network 31
Set up a computer (WPS) network 31-32
Wired Computer Set Up (without WI-FI options) 34
Update Cube Firmware 34-35
PRINT PAD INSTALLATION 36
SETTING PRINT JET GAP 36-37
MATERIAL CARTRIDGE INSTALLATION 38-41
PRINTING PREPARATION 42

PRINTING YOUR FIRST CREATION 43-47
WI-FI Connection 44-46
Cloud Printing from Cubify.com.....47-49
Printing From the USB Memory Stick 46
Aborting Your Print 47
REPLACING MATERIAL CARTRIDGE DURING PRINTING 50
FINISHING YOUR CREATION 51-52
Removing your Creation From the Print Pad..... 51
Removing Raft 52
Removing Supports.....52
MAINTAINING YOUR CUBE 51-52
Cleaning the Exterior 52
Cleaning the Print Pad 52
Cleaning the Print Tip 52
Cleaning the Touchscreen 53
4 Amp Fuse Replacement 53
PRINT PAD PLATE LEVELING INSTRUCTIONS.....54-58

1

INTRODUCTION

Thank you for purchasing “The Cube” It’s portable, plug and print design, enables everybody in the family to express their creativity like never before.With ten different material colors to choose from, enjoy the freedom to print in your true colors or to mix it up.Cube 3D Printers ready-to-print technology provides a new dimension to your imagination and helps you share your creations with others in the Cubify community at http://cubify.com.

At Cubify.com you can:

- Upload your creations for sale
- Purchase creations from others
- Get your creations 3D Printed
- Buy the CubeXX 3D Printer
- Engage with other creative partners

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FCC NOTICE

This equipment has been tested and found to comply with the limits for a class “B" digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their expense.

WARRANTY

3D Systems warrants that the CubeXX 3D Printer will be free from defects in materials and workmanship, during the applicable warranty period, when used under the normal conditions described in the documentation provided to you, including this user’s guide. 3D Systems will promptly repair or replace the CubeXX 3D Printer, if required, to make it free of defects during the warranty period. This warranty excludes (i) normal consumable or expendable parts (such as material cartridges, print pads, and Cub Glue), (ii) repairs required during the warranty period because of abnormal use or conditions (such as riots, floods, misuse, neglect or improper service by anyone except 3D Systems or its authorized service provider), and (iii) repairs required during the warranty period because of the use of non-integrated, non-approved or non-licensed materials in the CubeXX 3D Printer. The warranty period for the CubeXX 3D Printer is ninety (90) days and shall start on the earlier of the date your CubeXX 3D printer is activated or the thirtieth day after your purchase of the CubeXX 3D printer.

THIS WARRANTY IS THE ONLY WARRANTY PROVIDED FOR THE Cube 3D PRINTER. TO THE MAXIMUM EXTENT PERMITTED BY LAW, 3D SYSTEMS EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES FOR THE CubeXX 3D PRINTER AND EACH OF ITS COMPONENTS, WHETHER THOSE WARRANTIES ARE EXPRESS, IMPLIED OR STATUTORY INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR INTENDED OR PARTICULAR PURPOSES.

LIMITATION OF LIABILITY

3D SYSTEMS WILL NOT BE RESPONSIBLE FOR CONSEQUENTIAL, EXEMPLARY OR INCIDENTAL DAMAGES (SUCH AS LOSS OF PROFIT OR EMPLOYEE'S TIME) REGARDLESS OF THE REASON. IN NO EVENT SHALL THE LIABILITY AND/OR OBLIGATIONS OF 3D SYSTEMS ARISING OUT OF THE PURCHASE, LEASE, LICENSE AND/OR USE OF THE EQUIPMENT BY YOU OR OTHERS EXCEED THE PURCHASE PRICE OF THE CubeXX 3D PRINTER.

EN IMPORTANT SAFETY INFORMATION

Safety Symbols and Definitions

Hot Surface Hazard: A hot surface is accessible in the vicinity of this sign or at the printjet; avoid contact. Hot surfaces can cause severe burns.

Caution: Indicates something may happen that could cause loss of data, damage to equipment, or personal injury.

Caution: Indicates a pinch point hazard that could cause person injury.

Safety Guidelines

- Follow all safety rules in this section and observe all cautions and warnings in this guide.
- Do not modify any safety features or make modifications to the Cube. Doing so is prohibited and voids warranty.
- Use of print materials, or 3D prints other than genuine 3D Systems® components may void warranty.
- Adult supervision is required; observe children closely and intervene as necessary to prevent potential safety problems and ensure the Cube's appropriate use. Ensure small 3D prints are not accessible to young children. These 3D prints are potential choking hazards for young children.
- When the Cube is operating, the print tip on the printjet becomes hot; avoid touching this area until it has cooled down.
- Do not change color of material during printing; doing so may damage the Cube.

Cube 3D PRINTER FEATURES

The printjet print tip heats the material and produces a thin flowing material of plastic creating layers that adheres to the print pad. After each layer is produced, the print pad lowers so that a new layer can be drawn on top of the last. This is the process continues until the last layer on the top of the creation is jetted.

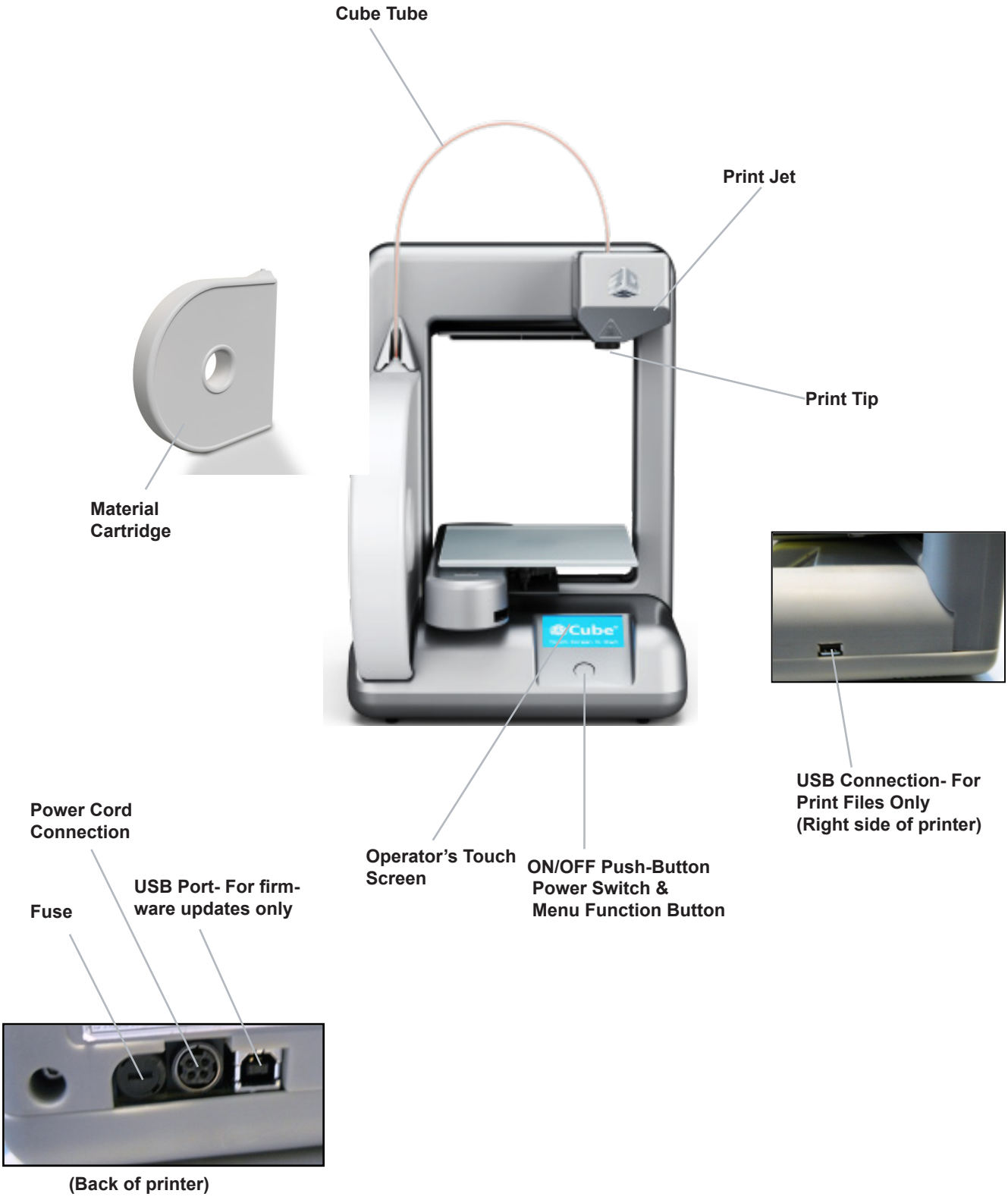
Cube 3D Printer Features

- Prints objects up to 5.5 X 5.5 X 5.5 in. (140 x 140 x 140 mm)
- EZ Load Print Cartridge
- Durable, ABS & PLA Plastic
- 25 Free 3D Print creations
- USB & WI-FI Connectivity

Cube 3D Printer Properties

- Technology: Plastic Jet Printing (PJP)
- printjets – Single Jet
- Max. Creation Size - 5.5” x 5.5” x 5.5” (14 x 14 x 14 cm)
- Material- Tough Re-cyclable plastic
- Layer Thickness – 10 mil | 0.01 inches 250 microns | 0.25 mm
- Supports: Fully Automated; Easy to peel off
- Cartridge: 1 Cartridge prints 13 to 14 mid-sized creations
- Material Color Choices – See Cubify website for color choices

AT A GLANCE


Cube Tube
Print Jet
Print Tip
Material Cartridge
USB Connection- For Print Files Only (Right side of printer)
Operator's Touch Screen
ON/OFF Push-Button Power Switch & Menu Function Button
Power Cord Connection
USB Port- For firmware updates only
Fuse
(Back of printer)

REQUIREMENTS FOR YOUR Cube

Software:

- Complimentary Axon 2 conversion software for Windows and Mac OSX. This application converts your 3D model into layered slices (G-code), ready for printing on your machine.
- **Minimum Hardware Requirements:**
- A PC with these minimum requirements will be required to run the Cubify Software
- Processor: Multi-core processor - 2GHz or faster per core
- System RAM: 2 GB
- Screen Resolution: 1024x768

Windows Requirements :

- Cubify Software runs on 32 and 64-bit Operating Systems.
- Windows XP Professional or Home Edition with Service Pack 3
- Windows 7
- Windows is required for ad-hoc WiFi Print Job submission. **NOTE: Ad-Hoc WI-FI connection will not connect to Windows XP operating systems**
- If not already installed, the Cubify Software installer will automatically install the Microsoft .NET 4.0 Framework

Wireless Options:

- 802.11b/g with: WPS Infrastructure or Ad hoc Mode.

Non-Wireless Option:

USB memory stick, to transfer print files (supplied with the Cube)

Mac OSX Requirements :

Cubify Software runs on Mac OSX 10.8

Electrical Requirements

- Outlet requirements: 100-240 Volts, at 50/60 Hz.
- Cube electrical rating: 24VDC, 3.75 amp.

Material Storage

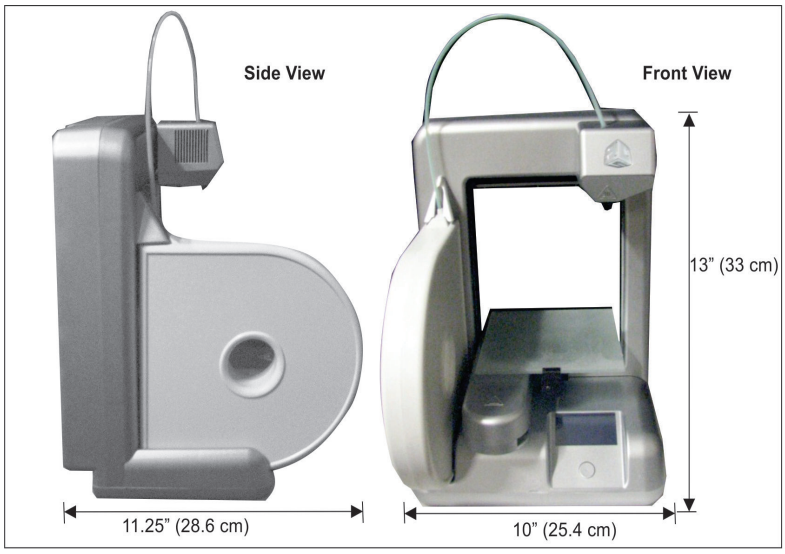
- All polymers degrade with time. The following conditions ensure the material remains high quality:
- Do not unpack until material is needed.
- Store at room temperature: 16-29° C (60 - 85° F)

Operating Environment:

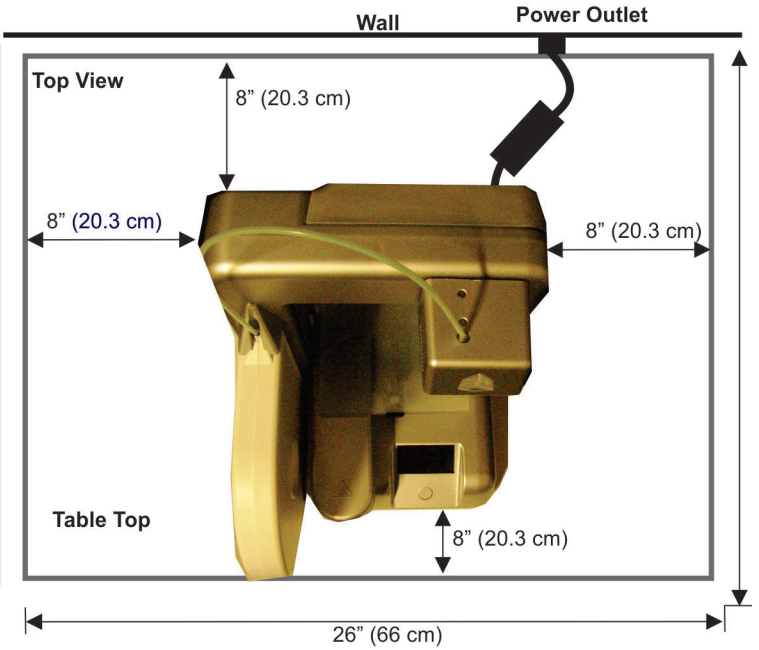
- Room Temperature: 16-29° C (60 - 85° F)
- Nozzle- 280°C (536°F)
- Print Pad- 66-77° C (150-170°F)
- Non-condensing Relative Humidity: 5% - 25%

Cube Weight & Dimensions

- Weight (without cartridge): 4.3 kg (9.5 lbs.)



Space Requirement



UNPACKING AND SETTING UP THE Cube

What's Included:

The Cube (1)

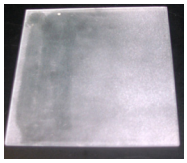
PLA Material Cartridge (1)

Power Supply (1)

Unclog Tool (1)

USB Memory Stick(1)

Cube Glue (1)



Print Pad (1)

USB Cable (1) This cable is used to download firmware only.

Quick Start Up Guide (1)

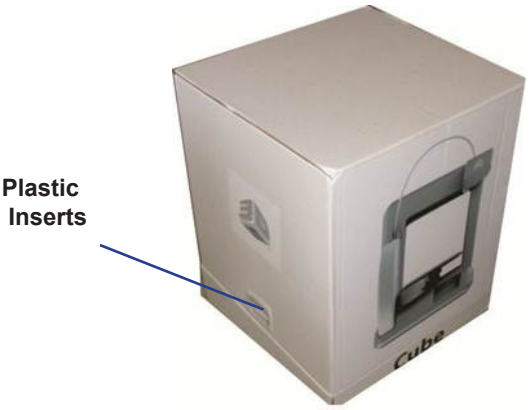
Power Cord (1)

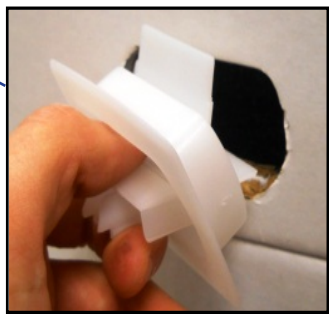
Cube Tube (1)

Cube Photo Booth Insert (1) (Use as a backdrop to display your creations.)

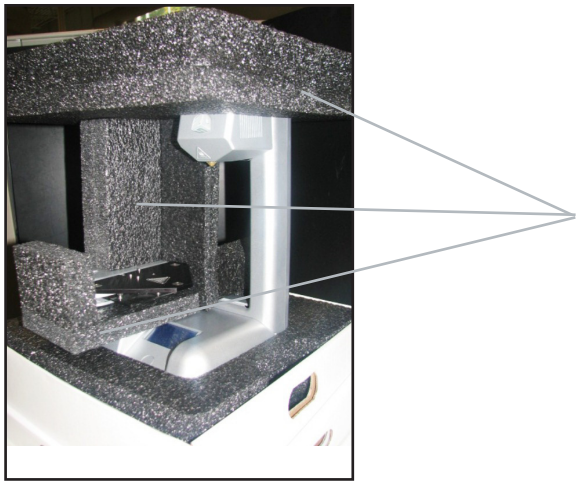
Note: Retain packaging and Cube carton for future transporting.

1. Remove white plastic inserts from each side of box. Pinch and bend insert out. Next, pull insert out of box to remove. Lift top of carton up and remove.





2. Lift foam from the top of Cube. Remove foam from the midsection and below the pad by gently pulling out from the front.
3. Lift Cube out of the box and place on table that has a flat working surface which is at least 4 times as large as base of the Cube.



Remove Foam

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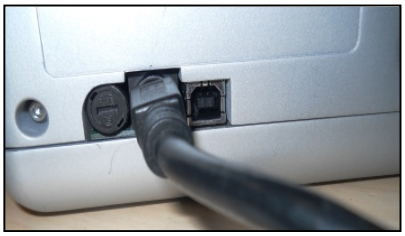
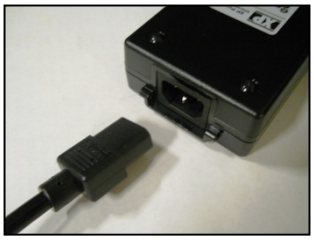
4. Remove print pad from foam under Cube and set aside.
5. Lift foam that Cube was sitting on to access power supply and other accessories.

Note: Retain packaging and Cube carton for future transporting.

6. Plug round connector into the round power receptacle located on the back of the Cube.
7. Plug cord into power supply and then into outlet or approved power strip.



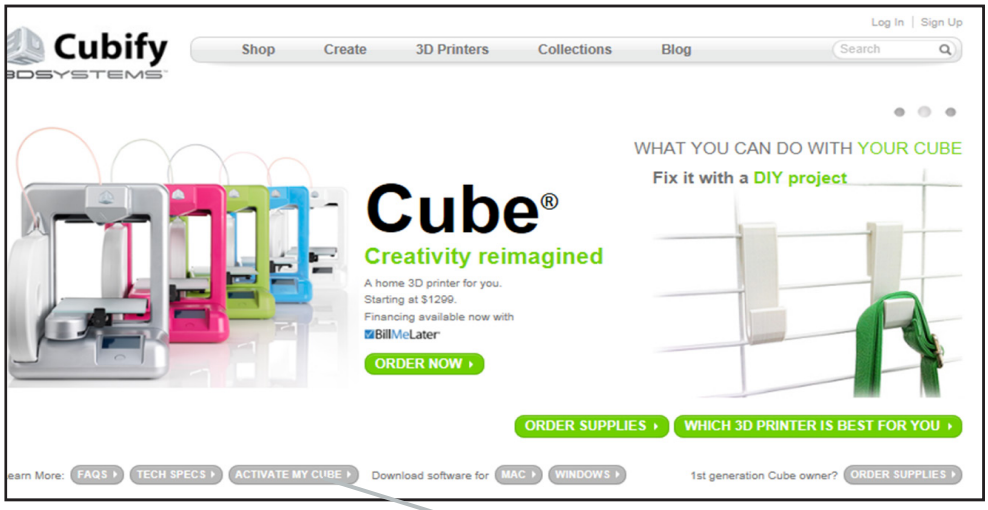


8 ACTIVATE YOUR Cube IN CUBIFY.COM

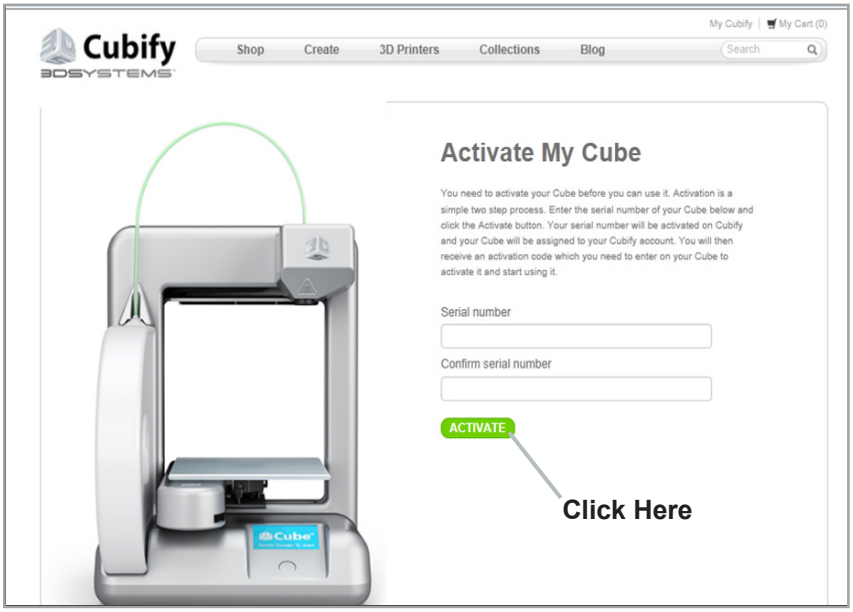
If you have not created an account in Cubify.com, please do so now to receive your one time activation code. Once your serial number is entered in “Activate my Cube,” your activation code will be sent to your e-mail account. If your e-mail was not received because spam filtered it, please check your spam e-mail. This code will be used to unlock your Cube so that you can start creating.

1. Enter http://cubify.com in your web browser and click on “Sign Up” to create an account. If you already have an account, please log in to your account.

2. Click on “Activate my Cube” from “My Cubify “ drop down menu.



3. On the Cube Activation Form, enter your Cube 12 digit/letter serial number (located on the back of Cube) in the activation screen and click on “Activate.”


Cubify
3DSYSTEMS
My Cubify | My Cart (0)
Shop
Create
3D Printers
Collections
Blog
Search
Activate My Cube
You need to activate your Cube before you can use it. Activation is a simple two step process. Enter the serial number of your Cube below and click the Activate button. Your serial number will be activated on Cubify and your Cube will be assigned to your Cubify account. You will then receive an activation code which you need to enter on your Cube to activate it and start using it.
Serial number
Confirm serial number
ACTIVATE
Click Here

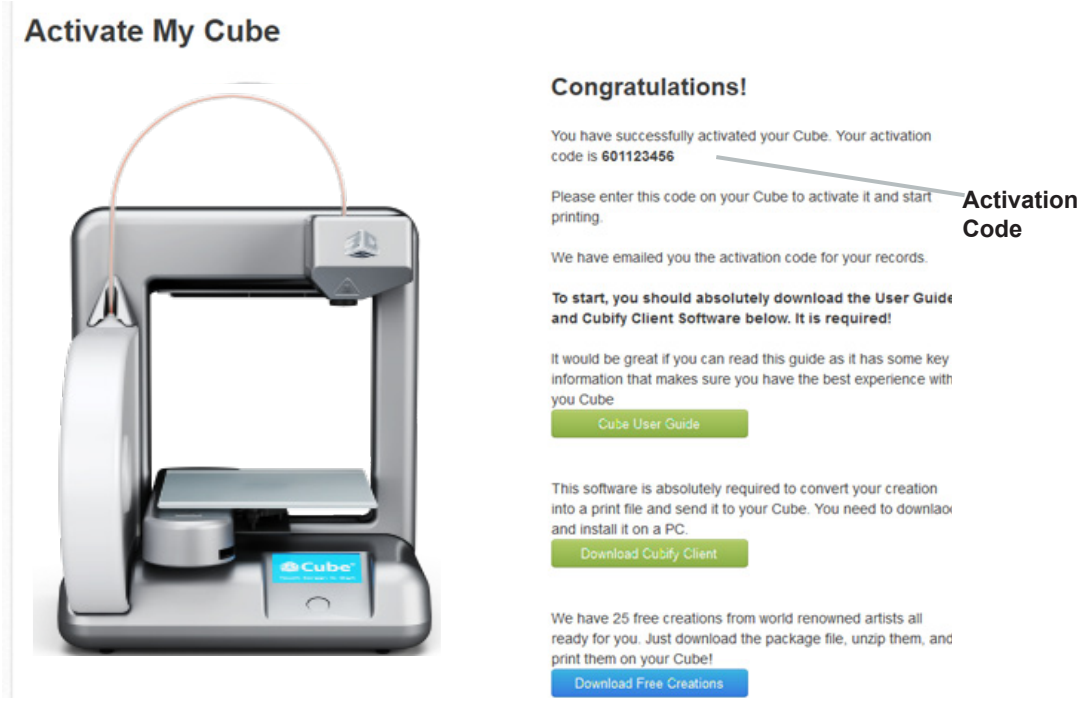
4. Your Cube’s serial number is now activated on Cubify and your Cube will be assigned to your Cubify account. Your activation code will be displayed, and sent to you in an e-mail along with links to help you get started creating.
5. Using the links in your activation code e-mail or the “My CubeXs” section in your account, download your free software and gifts from Cubify:
   - 25 Free creations - all by top artists, ready for printing on your Cube!
   - **The Cubify Software- To create the print files and submit it to the Cube for printing.** It is required that the software is downloaded and installed before you can start your creation.
   - Cube 2nd Generation3D Printer User Guide (This guide is also found on your USB memory stick.)
   - Material Safety Data Sheets

9

UNLOCK YOUR Cube

Once you have successfully activated your Cube account, next step is to unlock your Cube to begin your creations.

1. Your unique activation code appears in the ”Congratulations” screen after you activated your Cube account; your code was also sent to your e-mail account.


Activate My Cube
Congratulations!
You have successfully activated your Cube. Your activation code is 601123456
Activation Code
Please enter this code on your Cube to activate it and start printing.
We have emailed you the activation code for your records.
To start, you should absolutely download the User Guide and Cubify Client Software below. It is required!
It would be great if you can read this guide as it has some key information that makes sure you have the best experience with you Cube
Cube User Guide
This software is absolutely required to convert your creation into a print file and send it to your Cube. You need to downloa and install it on a PC.
Download Cubify Client
We have 25 free creations from world renowned artists all ready for you. Just download the package file, unzip them, and print them on your Cube!
Download Free Creations

2. To start your Cube, press the round button on the front panel; wait five seconds to allow your Cube to warm up.
3. Tap on the touchscreen to view the “Unlock Code “screen.

4. Tap in your activation code and then tap on the check box to unlock your Cube. If an error is made while entering your code, finger tap “Delete” and re-enter your code; tap on the check box. Your Cube is unlocked and you can now start your creation. You are now at the main menu.

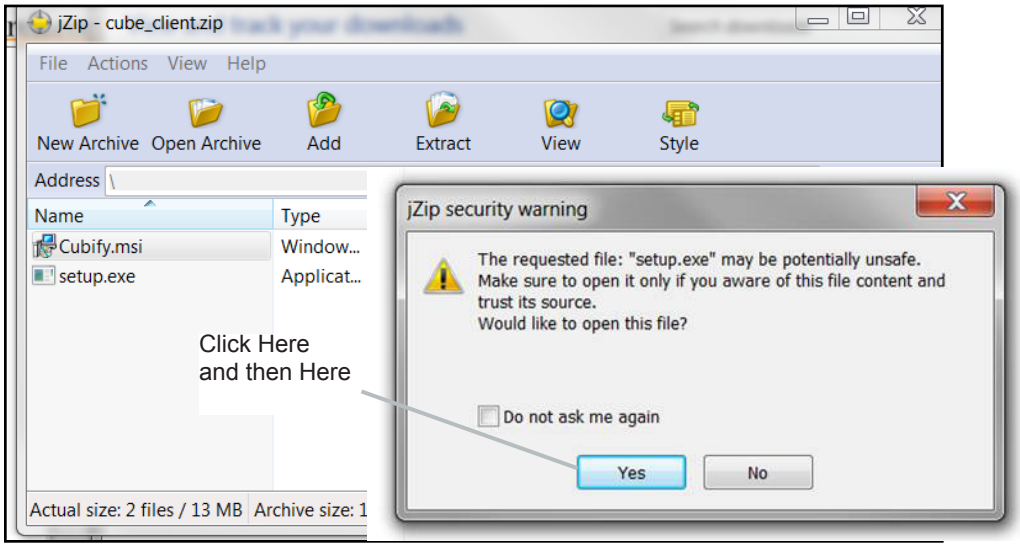
10 DOWNLOAD AND INSTALL CUBIFY SOFTWARE FOR WINDOWS

While your first creation is being built, download the Cubify Software to begin experimenting with the software to create your own prints.

- It is required to download the Cubify software so you can import .STL or .creation files into the software to convert them to a .Cube file.
- The .Cube file is a machine code file that the Cube printer can read.

1. In the menu, Click on “Download Cube software” for MAC or Windows platform,

2. Click on Setup.exe in the Cube.zip; the next screen will ask if you would like to open this file; click Yes.



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3. The Cubify Setup Wizard will guide you through the steps to install the software on your computer. Select Next to start the Setup Wizard.

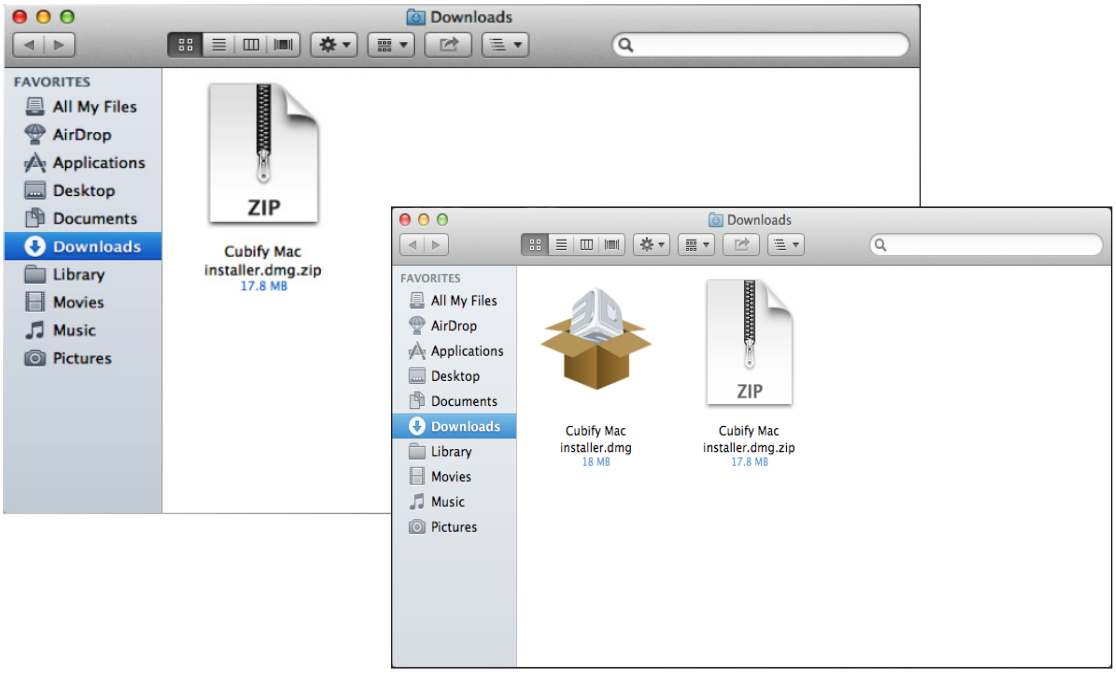
Cubify
Welcome to the Cubify Setup Wizard
The installer will guide you through the steps required to install Cubify on your computer.
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.
Cancel
< Back
Next >
Click
Next

DOWNLOAD AND INSTALL CUBIFY SOFTWARE FOR MAC OSX

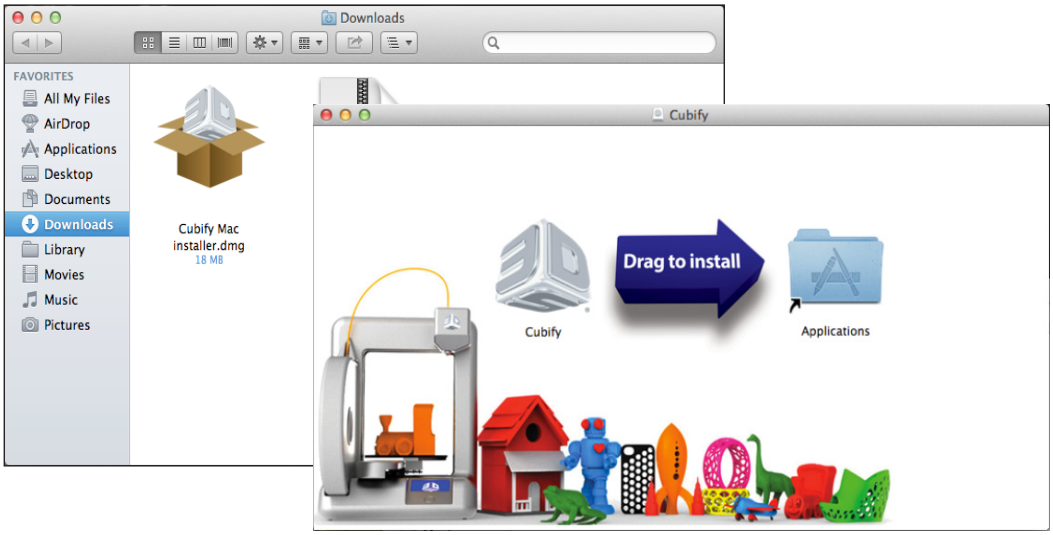
While your first creation is being built, download the Cubify Software to begin experimenting with the software to create your own prints.

- It is required to download the Cubify software so you can import .STL or .creation files into the software to convert them to a .Cube file.
- The .Cube file is a machine code file that the Cube printer can read.

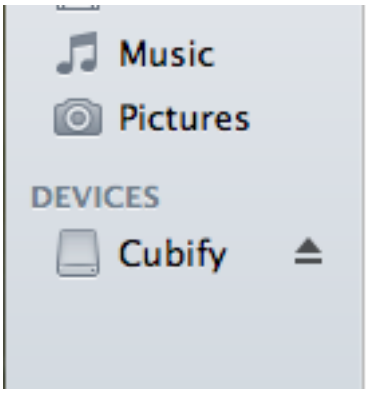
1. In the menu, Click on “Download Cube software.” Double click on the zip file and the “Cubify Mac installer dmg” will appear.



2. Double click “Cubify Mac installer dmg,” a new window will open. Drag to install into the “Applications” folder.



3. If the “Drag to install” window did not open, locate the “Cubify” driver in your device panel. Click on “Cubify” to download software. **Note: Safari users will not have to unzip the dmg.; it will unzip as it downloads.**

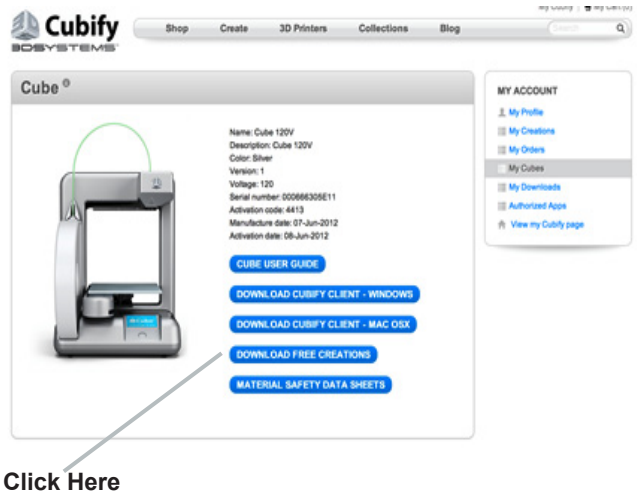


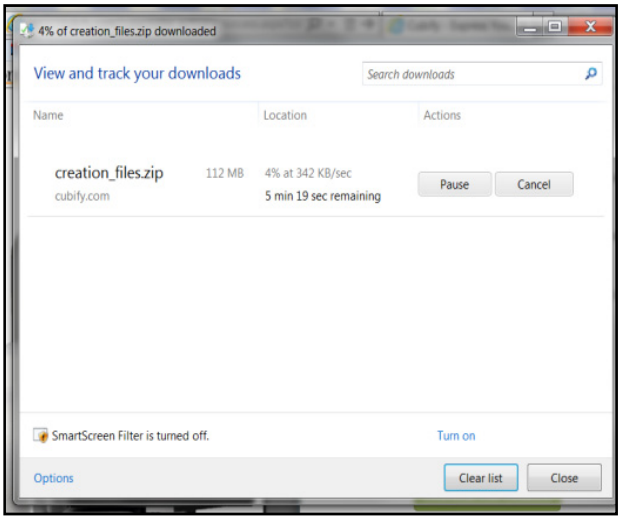
12

DOWNLOAD YOUR FREE CREATIONS

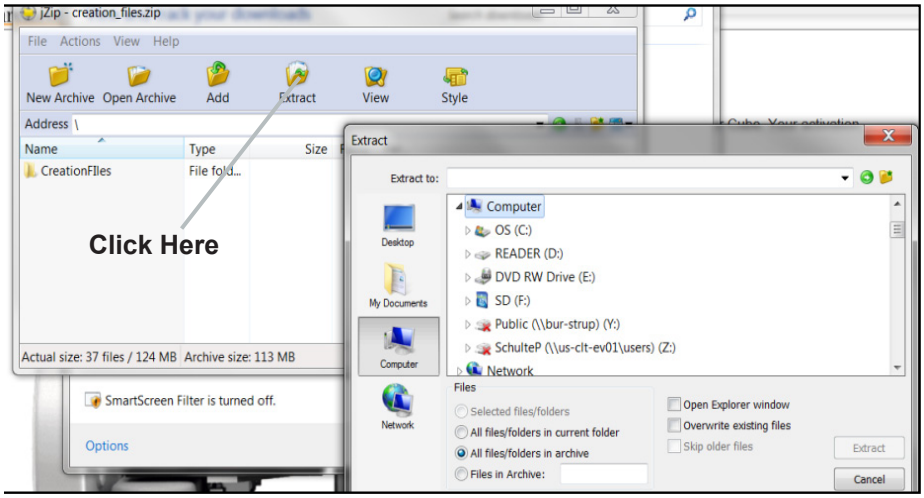
Download your free 25 Free creations by following these simple steps.

1. Click on “Download free creation;” your download will start immediately.





2. Click on “Extract” folder in the Creation zip file and extract it to your computer.

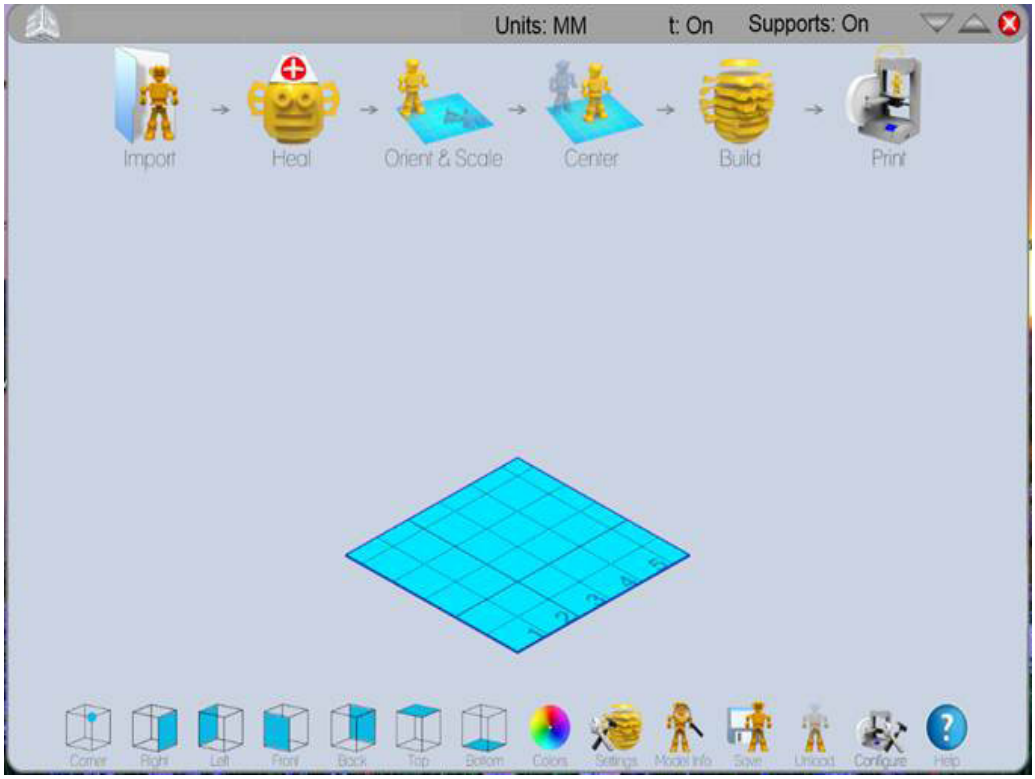


13

CUBIFY SOFTWARE OVERVIEW

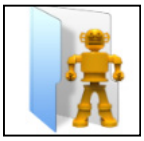
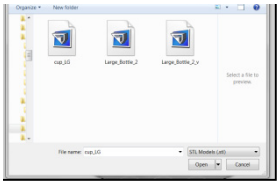
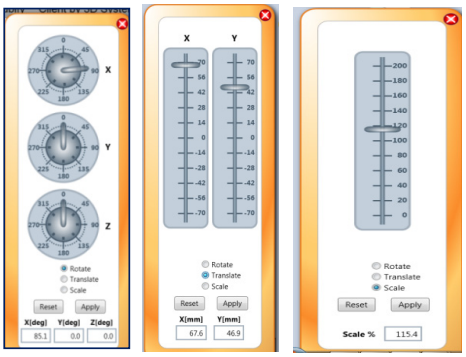
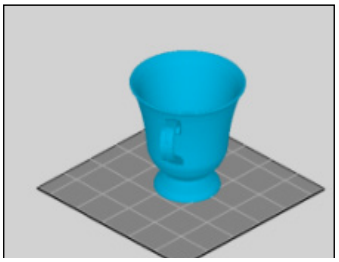
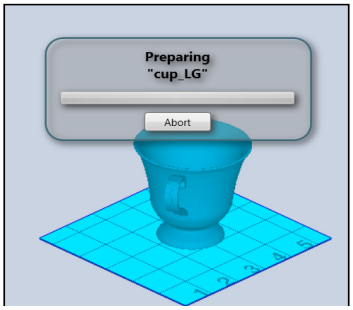
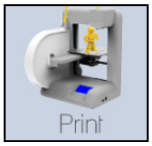
The Cubify Software allows you manipulate your design before sending it to the Cube for printing. It simulates the Cube's print pad so you can orient, scale, re-size and rotate the 3D print to get the best result when printing.

Become familiar with the software and understand the functions before starting your first print.

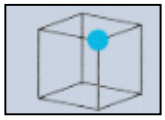
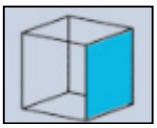
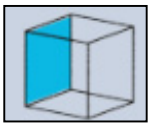
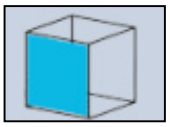
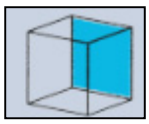
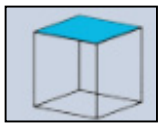
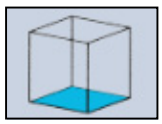
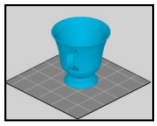
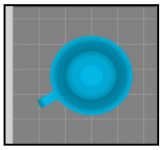
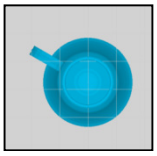


Key File Types

- STL Files: A 3-dimensional solid Computer-Aided Design (CAD) file that describes the geometry to be printed. This is typically output by the design tool or software being used.
- Creation Files: These files are 3-D models that can be downloaded from Cubify.com and are optimized for your Cube. Import your creation file into the Cubify Software and click on "Build" to prepare your creation for print.
- Cube File: This is the machine code file that the Cube printer will read to build your creation.

	Click on “Import ”and select a creation file; your 3D print will appear on the print pad.	
	Click on “Heal” to fix your creation.	
	Orient your creation on the print pad in X, Y, Z axis. Rotate X- turns your creation front to back and back to front. Rotate Y- turns your creation right to left and left to right. Rotate Z- turns your creation in a circular motion. Translate X- moves the creation from side to side on the build pad. Translate Y- moves the created front to back. Scale- increase or decrease your creation. NOTE: Reset the dials and slides to zero to restore the part to its original postion.	
	Center your creation on the print pad by clicking on the “Center” icon. If multiple items are loaded, the center function will auto-position all items. Any positioning changes you made previously may be lost.	
	Click on ”Build” to create the Cube file for your creation. Any changes that you made to your creation file will be saved. Once the file is created, support structures will begin to generate and the slicing process will begin to prepare your creation to print.	
	Click on “Print” to transfer your creation to the Cube. The two methods of sending your creation to print are: Set up Ad hoc or WPS WI-FI modes USB memory stick connected to your computer for downloading your creation for print. (See Cube 2nd Generation Quick Start Guide for more details.)	

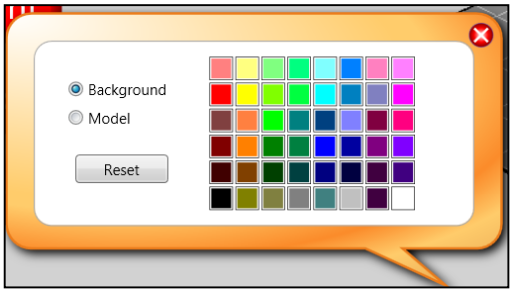
These icons permit you to view your creation in various view points. After selecting a particular view, place your cursor on the part and hold the mouse button down; rotate the print pad to view different angles of the part.

						
Isometric	Right Side	Left Side	Front Side	Back Side	Top Side	Bottom Side
						

Click on “Color” and choose “Background” and select a color for your software background.

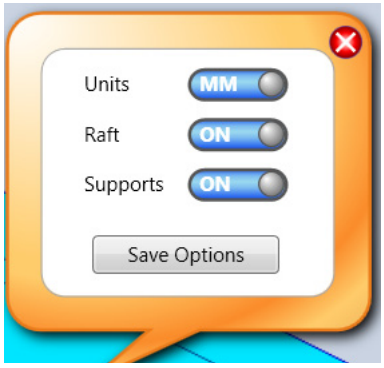
To change your creation color, select “Model” and choose color.

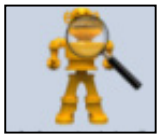
NOTE: The color you select for either background or model does not affect the color of your part to be created.



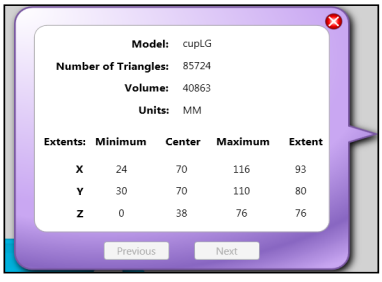
Choose how you want to view your 3D print size; inches or millimeter.

Turn Raft and Supports ON or OFF by clicking on the buttons.

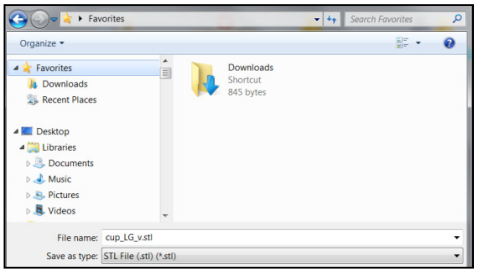


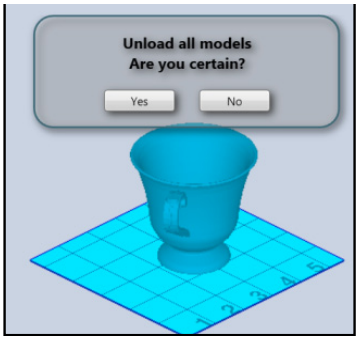


Click on the Info button to view your creation information.



To save your creation without printing, click on save. The changes that you made to the print will be saved.



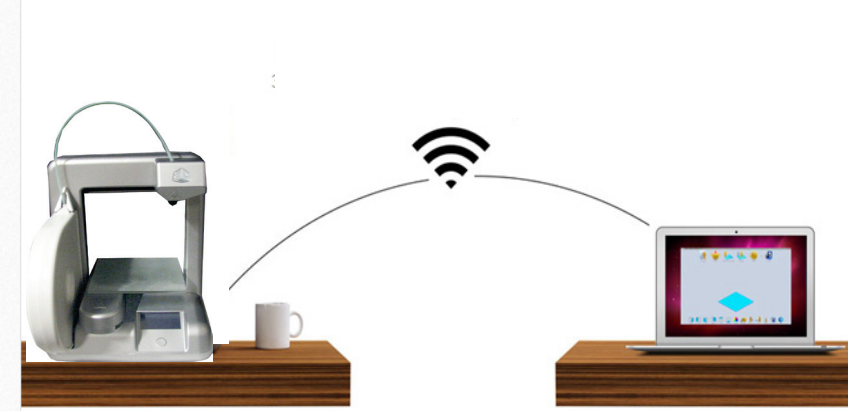
	To delete the file from the print pad, click on “Unload. A message will appear asking if you are sure you want to unload your model. Select “Yes” to delete the 3D print or “No” if you would like to continue.	
	Allows connection between your computer and the Cube through WI-FI. It also downloads firmware upgrades to your Cube.	
	Click on the Help button to access the Cube 3-D Printer User Guide and Material Safety Data Sheet (MSDS).	

Set up a computer (ad hoc) network

NOTE: Ad hoc will not connect to operating systems running Windows XP.

An ad hoc network is a temporary connection to your Cube Printer through your computer or your wireless smart phone.

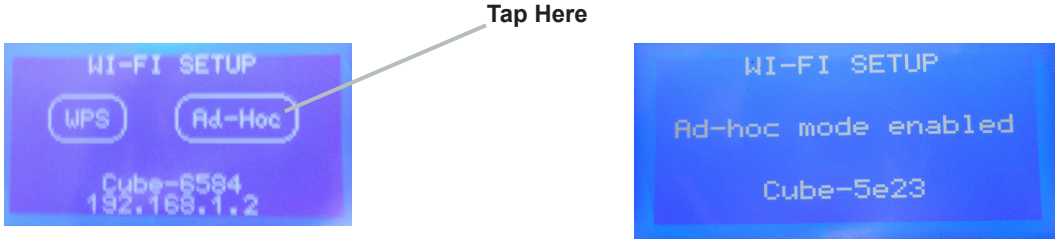
Ad hoc networks can only be wireless, so you must have a wireless network adapter installed in your computer to setup or join an ad hoc network.



1. Tap on “SETUP” in the main menu and scroll until you come to the WI-FI set up screen

2. Tap on “WI-FI SETUP”

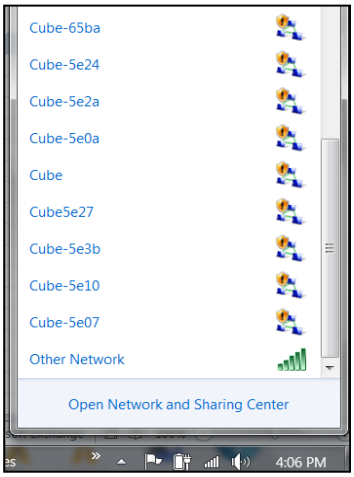
3. Tap on “Ad Hoc” in the menu screen. The next screen will show ”Ad Hoc mode enabled,” meaning it is ready to connect to your computer.

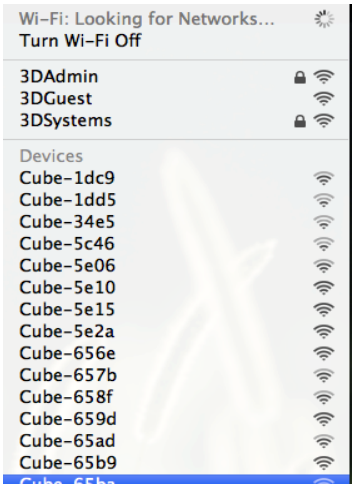


4. Open your “Internet Access” Located in your Network Settings.

Note: Always select your Cube from your network settings before opening Cubify Software.

5. Scroll and select your Cube on the menu. Click on “connect.” This may take several minutes to connect. Once connected, you can send print files from Cubify software straight to your Cube.

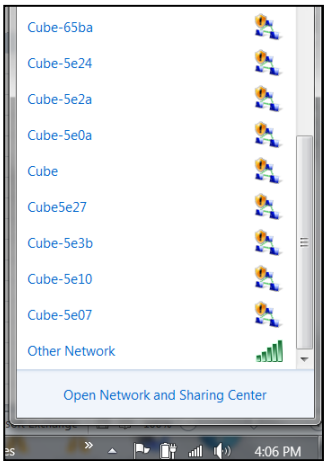


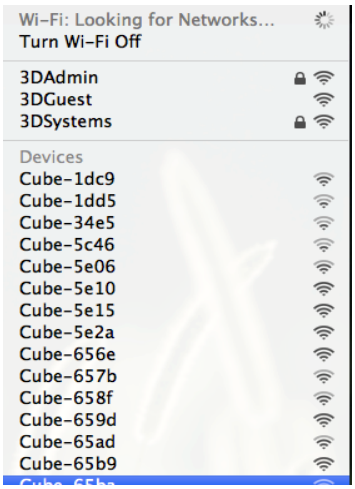


Set up a computer (WPS) network

WPS (WI-FI Protected Setup) allow easy establishment of a secure wireless network. All new wireless-routers are set up for WPS. To be sure, look for the WPS logo on your wireless-router box. WPS connection will allow you to connect to your printer through the Cubify Software.

1. Press and hold the WPS button on your wireless-router until the button starts flashing.
2. Open your “Internet Access” located on your computer’s taskbar.
3. Scroll and select the network for your router on the menu. Click on “connect.” This may take a few minute to connect.

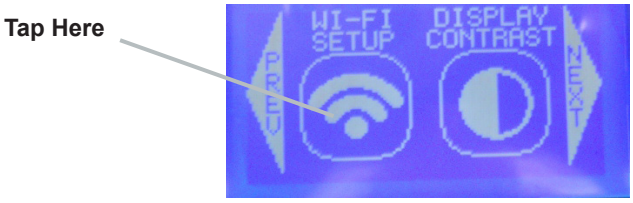




4. Tap on “SETUP” in the main menu and scroll until you come to the WI-FI set up screen

Set up a computer (WPS) network (cont'd)

5. Tap on "WI-FI SETUP"



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6. Tap on "WPS" in the menu screen. The next screen will show your printer connecting to your computer and then if WPS connection was successful. If connection was not successful, unplug the power to your Cube and then plug your Cube in; Repeat the WPS WI-FI set up until you the touch screen reads "WPS Connection."

Switching from ad-hoc to WPS connection or vice versa:

1. Close out Cubify Software.
2 Disconnect the Cube's wireless connection through the "Internet Access" menu on your operating system.
3. Now follow steps for WPS / ad-hoc set up.
4. Re-open your software after your Cube successfully connects to WPS/ad-hoc.

15

Non-Wireless Computer Set Up (without WI-FI options)

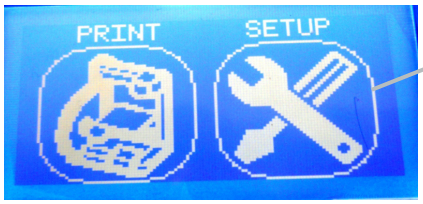
If you are not connected to a network, you can download your creations from your computer and save them to your USB memory stick for printing.

- When printing with the USB memory stick, the file must be in the main folder located on the memory stick. If it is put into another folder it cannot be accessed from Cube screen.
- Install your USB memory stick into your computer's USB connection and save your creation to your USB memory stick.
- When you are ready to print your creation, install your memory stick into the Cube's USB connection and print your creations.

16

Update Cube Firmware

1. Tap on "Setup" on the Cube touch screen and scroll to "Update Firmware." Finger tap "Update Firmware."



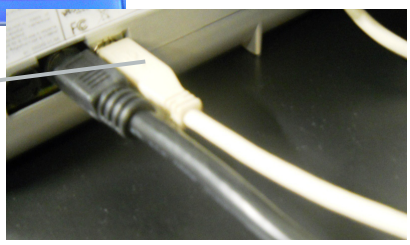
Tap Here

Tap Here One Time

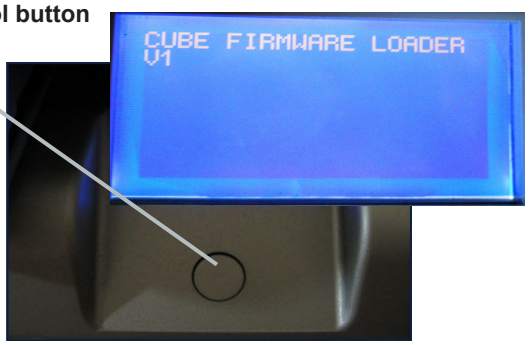
2. If your USB memory stick is connected to the Cube, please remove the memory stick, (the screen will display the directions to do this). Tap the "NEXT" arrow on the display; locate the USB cable and connect the cable to the Cube USB port located on the back of the Cube (again, these instructions will be displayed on the screen). Connect the other end of cable to your computer's USB port. NOTE: Never leave the USB cable connected except when upgrading the firmware
3. Tap the "NEXT" arrow. "SETTINGS SAVED" will be displayed at the top of the screen. You will have 6 seconds to press and hold the control button until firmware loader appears on the screen. If the button is released before the firmware screen appears, the screen will go blank. Repeat "Step1" to restart the update firmware process.

2. Remove USB Memory Stick

Connect USB Cable



3. Press and hold the control button



4. Continue to hold button until “Settings Saved” and then “Cube Firmware Loader XX” appears on the touch screen. You are now in the correct mode to update your firmware. NOTE: Be sure to disconnect the USB cable after you have updated your firmware.

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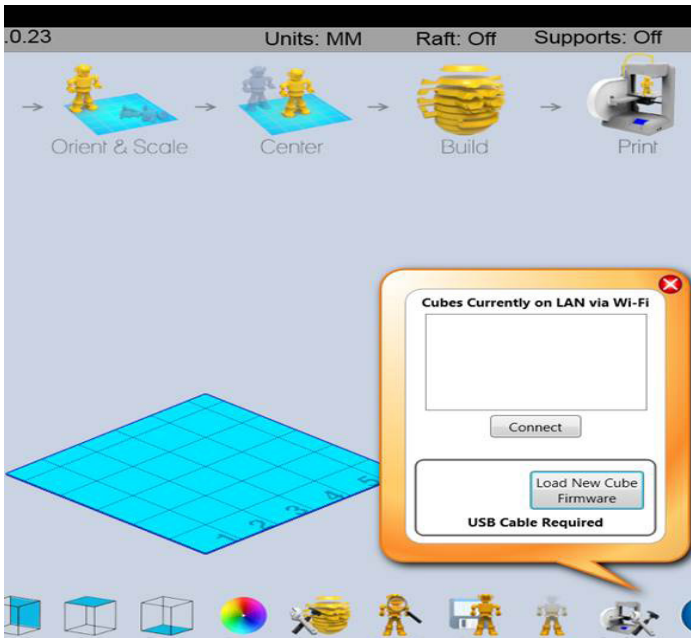
5. Open Cubify Software and click the “Configure” icon; click on “Load New Cube Firmware.” Once you see the pop-up message “Firmware Updated Successfully”, click OK.



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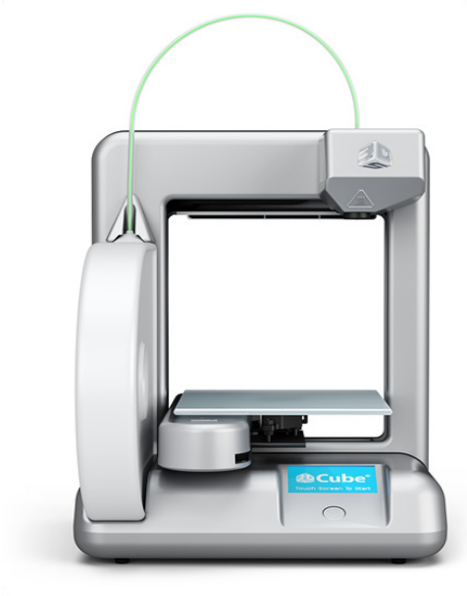
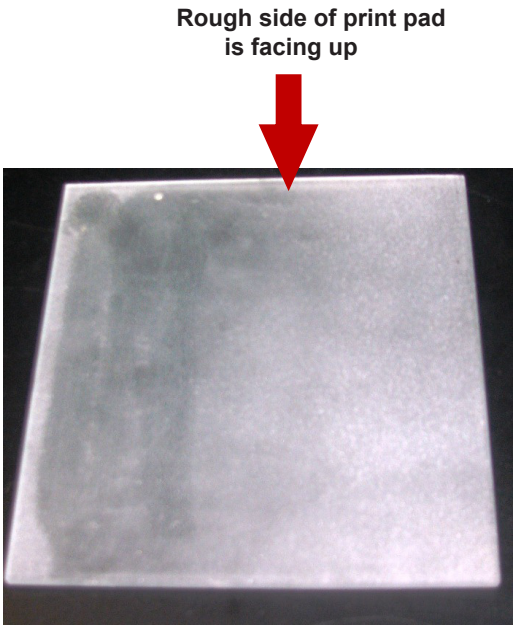
6. Disconnect the USB cable from your Cube and computer; unplug the Cube power cord. Plug power cord back in and press the Cube power button; a message will display on the touchscreen “Setting restored,” click on the check mark to save settings. This does not change your previous settings that you have made. Your new firmware is now installed.

17

PRINT PAD INSTALLATION

1. Place print pad magnetic strip onto the magnetic strip on print plate.





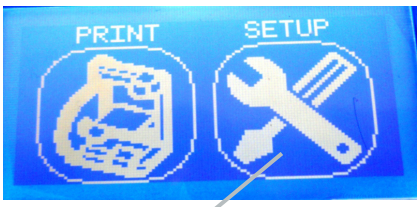
18

SETTING PRINT JET GAP

The print tip must be set to the correct distance between the print tip and the print pad to ensure the first printed layer sticks properly.

When the Cube is operating, the print tip on the print jet nozzle becomes hot; avoid touching this area until it has cooled down.

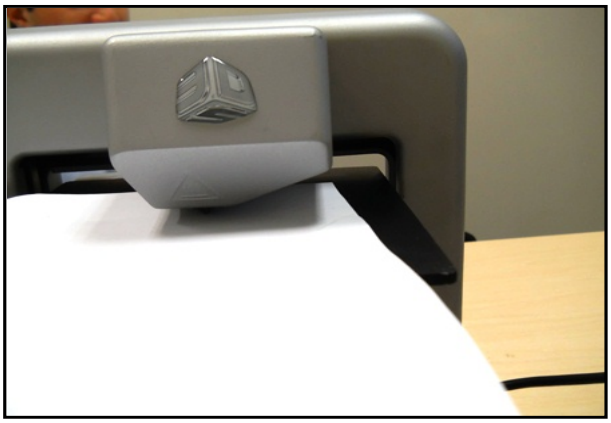
1. Finger tap “Set Up” on the touchscreen and press “Next” until “Set Gap” appears.



Tap Here

2. Finger tap “Set Gap;” **The print jet and print pad will move into position to set the gap.** Next, place a standard sheet of paper between the print tip and the print pad. If the paper can not slide between the print tip and print pad, tap the “down” arrow key on touchscreen.

Tap Here



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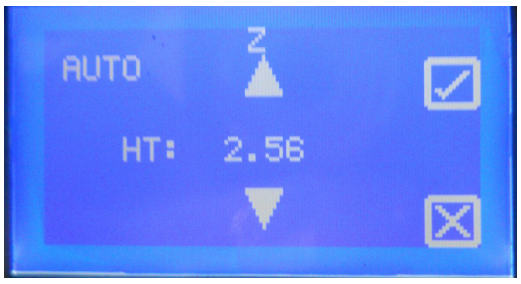
3. Press the “Z” up key to move the print pad upward to the print tip until the paper is tight between the print pad and the print tip. Finger tap the down key until the paper slides back and forth with no resistance.
4. Press the check mark to save setting to printer’s memory. Press the X in box to cancel setting. If saving the setting, the “Gap” value will be applied for each subsequent print.
5. If you have issues printing after the gap have been saved, you can change the gap at anytime using this procedure.



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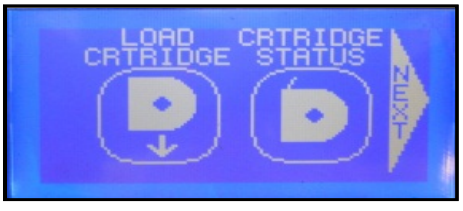
6 Once gap is set, tap PREV to start “Load Cartridge” process.

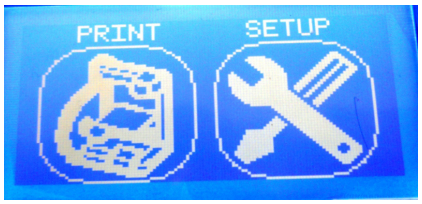
Tap Here



19

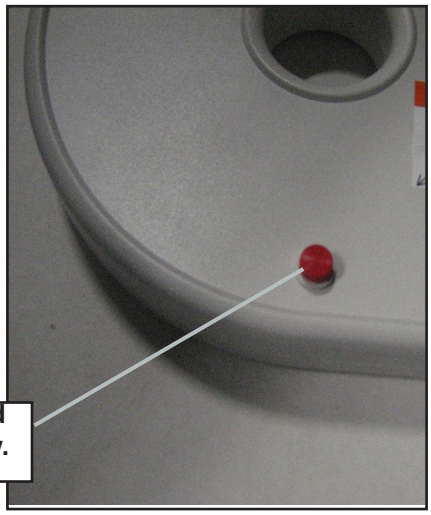
MATERIAL CARTRIDGE INSTALLATION

1. Remove material cartridge from packaing; using scissors cut top portion of bag and remove the cartridge.
2. Tap “Setup” on Cube touch screen then select “Load Cartridge,” press Next.



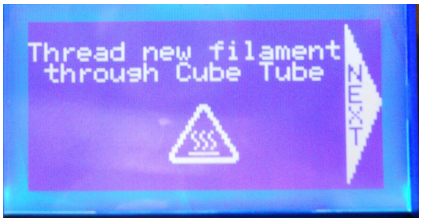
3. Remove thumbscrew on the side of the material cartridge. Remove the blue tape from material. Retain screw to re-install in cartridge when you need to store cartridge again. Press Next to begin the cartridge installation.

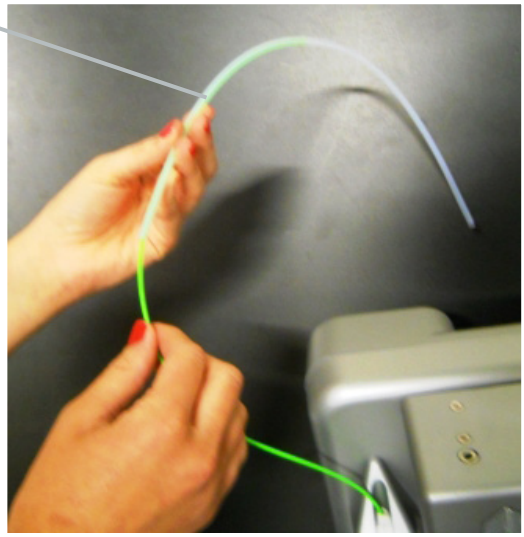
Do not pull material until thumbscrew is removed from cartridge. Doing so will damage cartridge.



3. Locate the clear tube (Cube tube) in packaging and thread the material through the Cube tube until it comes out of the other end of tube.

Cube Tube





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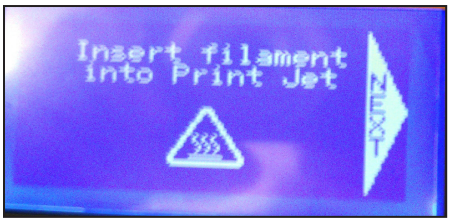
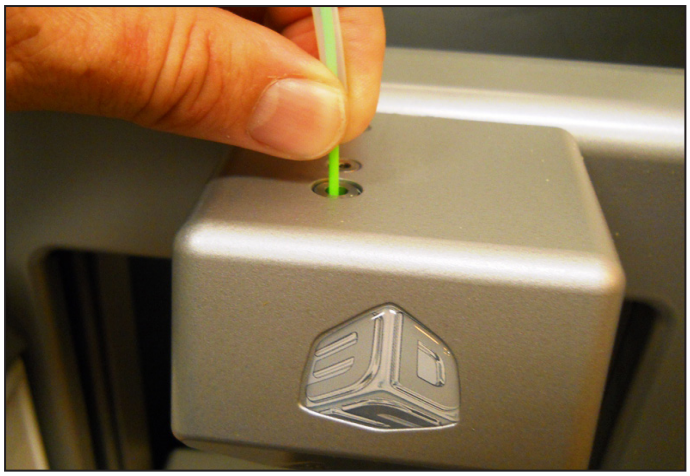
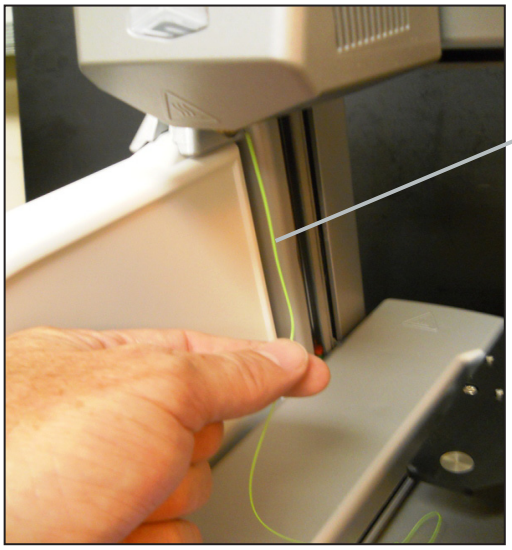
4. Insert material coming from tube into print jet; continue to hold material and press Next on the touchscreen. Continue pressing material until it feeds through the print jet.



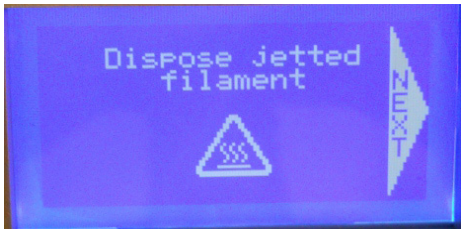


5. Material will then be drawn into the print jet until a small amount of material comes out of the heated print tip on the bottom of the print jet. Remove the jetted material being careful not to touch “HOT” print tip. Dispose of jetted material; press Next.

PRINTJET NOZZLE TIP BECOMES EXTREMELY HOT DURING SET-UP AND OPERATION. DO NOT TOUCH NOZZLE.



Remove the jetted material



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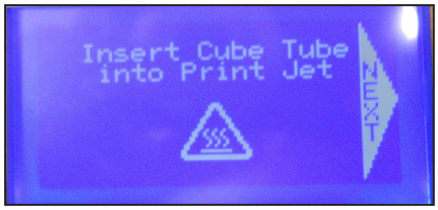
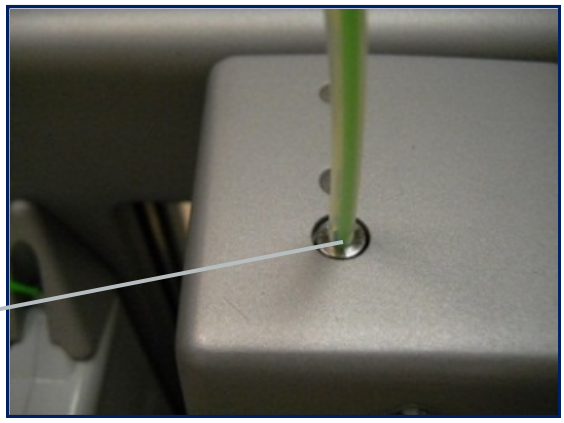
6. Insert Cube tube (clear tube) into print jet and press Next; loading of the cartridge is completed. If the first attempt at loading the cartridge is not successful because the material did not jet from the print tip, remove the material from the print jet. Repeat the Material Cartridge Installation.



Insert Cube tube into print jet.



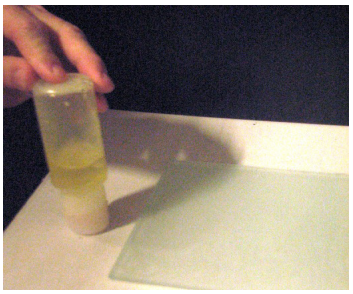
21

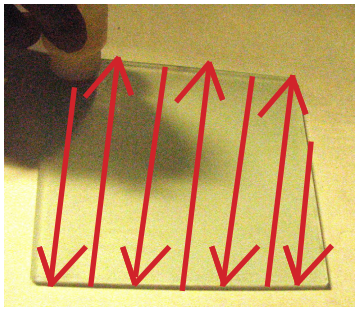
PRINTING PREPARATION

NOTE: The Cube Glue will have to be applied on the print pad every time you start a new creation.

Caution: Do not use any other type of glue other than Cube Glue. Doing so can damage your print tip and the print pad.

1. Stand Cube Glue on it's cap until the glue flows to the cap; remove cap.
2. Remove print pad from the Cube; slowly paint a coat of glue in rows moving the bottle up and then down until the glue is evenly distributed on the entire print pad. Check the pad after applying the glue to ensure there are noticeable gaps where glue was not applied. If so, apply glue to the gaps.
3. Replace glue cap after use.
4. Place print pad on the print pad platform.





WARNING –PRINTJET NOZZLE TIP BECOMES EXTREMELY HOT DURING SET-UP AND OPERATION. DO NOT TOUCH NOZZLE.

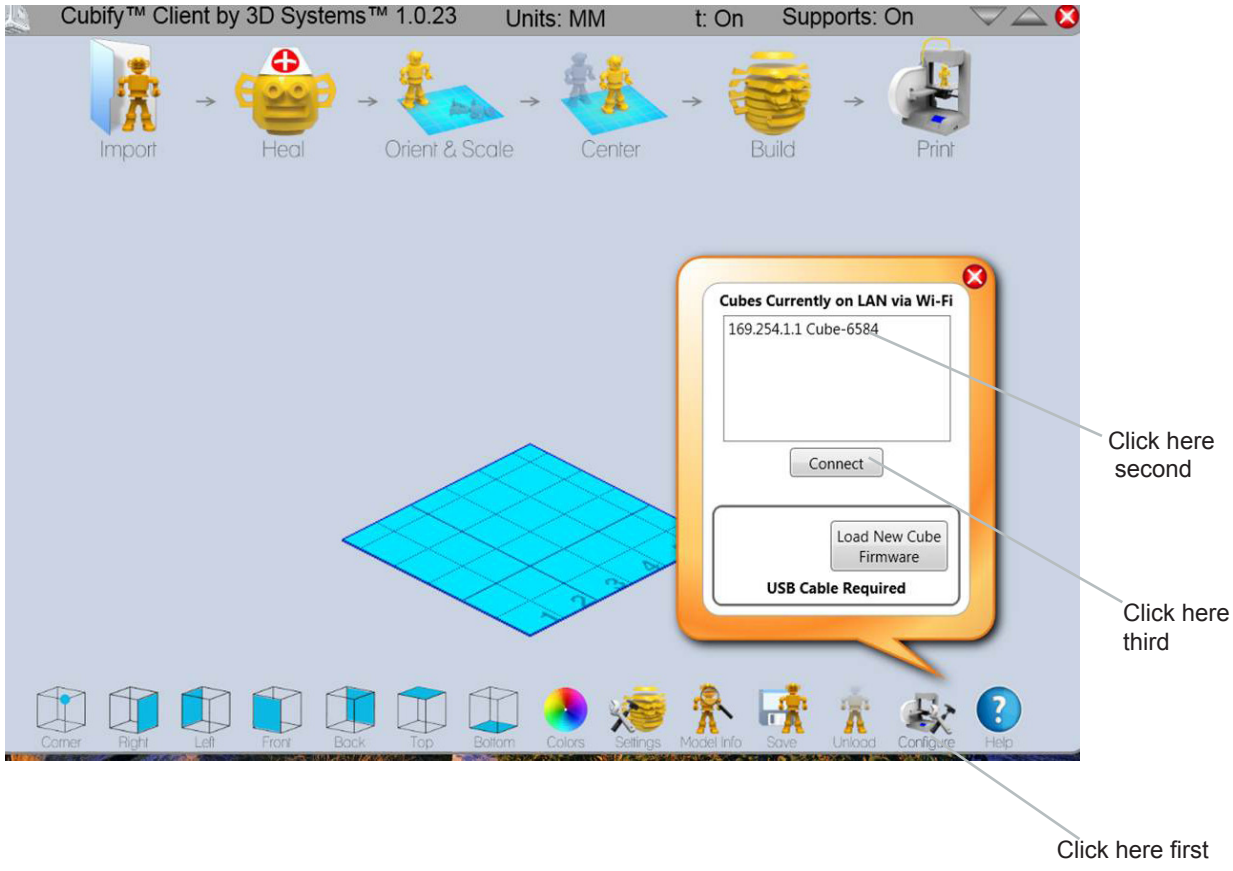
Do not change color of material or cartridge during printing; doing so may damage the Cube.

NOTE: Your Cube will have printed test creations before leaving the factory. These test creations may have been printed in a different material color than you are using. Therefore, a small amount of material may be remaining in the print jet. The start of your first creation may have some of this material color until it transitions over to your material color.

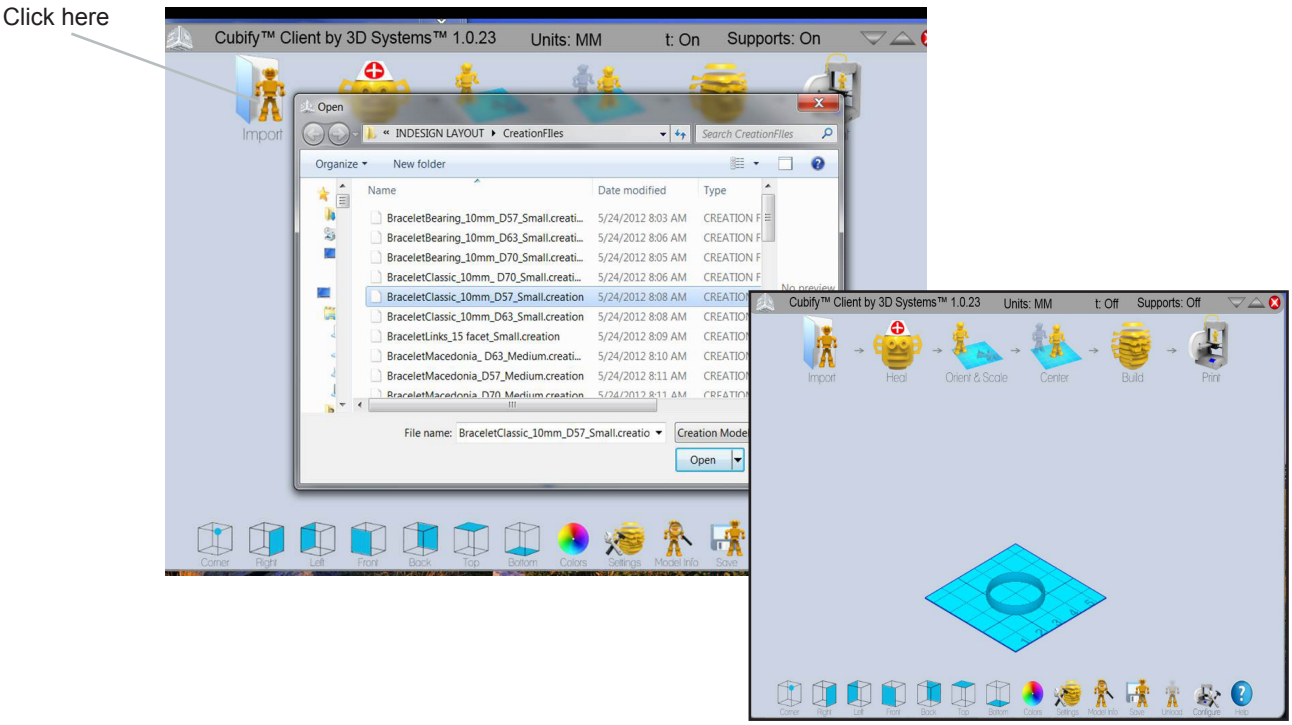
To get started printing your first creation; the creation files that were downloaded when you activated your account or a .STL file will need to be converted to a .Cube file. This is the machine code file that the Cube printer will read to build your creation.

WI-FI Connection: if you wished to connect to WI-FI via Ad hoc or WPS connection, please refer to Section 12, WI-FI Set-Up and follow the step by step instructions. Then resume these instructions and follow the steps below to connect to your Cube. These steps apply to both Ad Hoc and WPS connections.

1. Open Cubify Software and click on “Configure.” Click on your Cube model in the dialog box and click on “Connected. Your computer is now connected to your Cube.



2. Click on “Import” and select a file from the creation files that you downloaded from Cubify.com or a .STL file. The creation that you selected will appear on print pad. The software’s print pad is a simulation of your Cube print pad.



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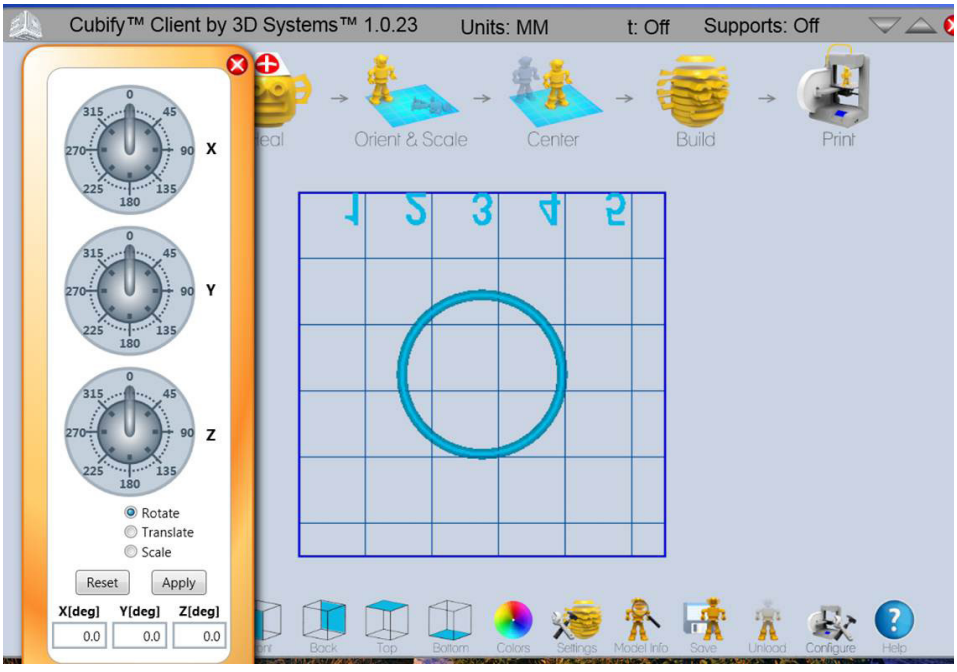
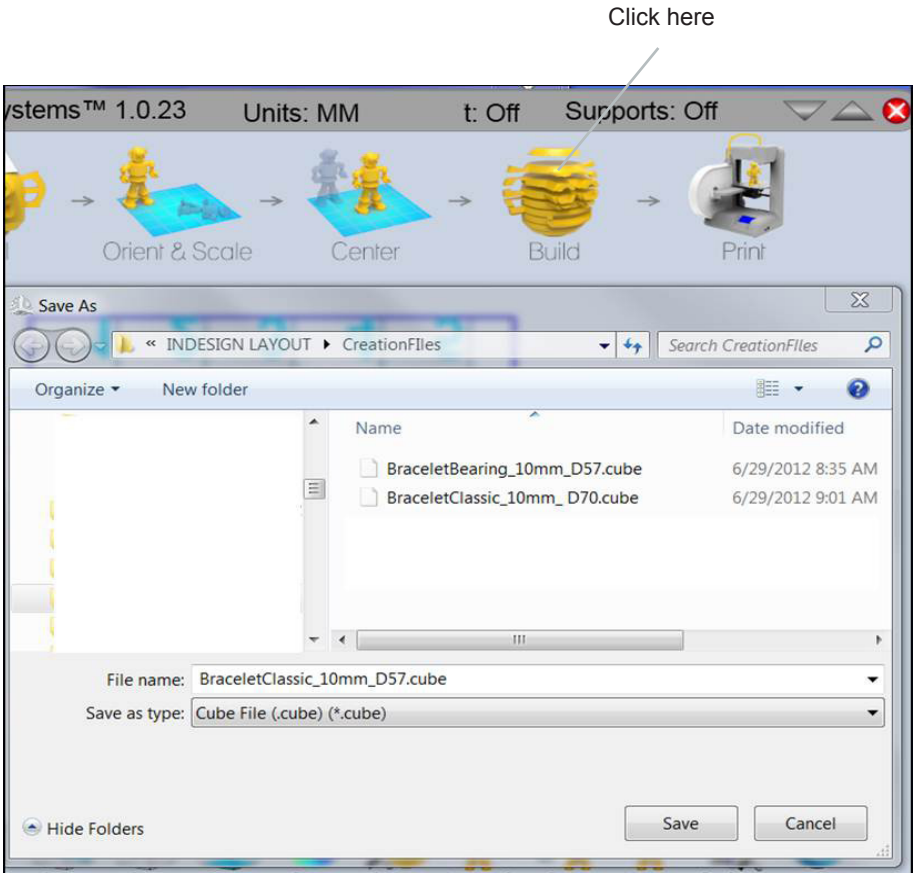
3. In the software you can orient, scale, and manipulate your creation to ensure that you obtain the optimum printing results. Refer to Section 11, “Cubify Software Overview” to understand the different functions your software provides.

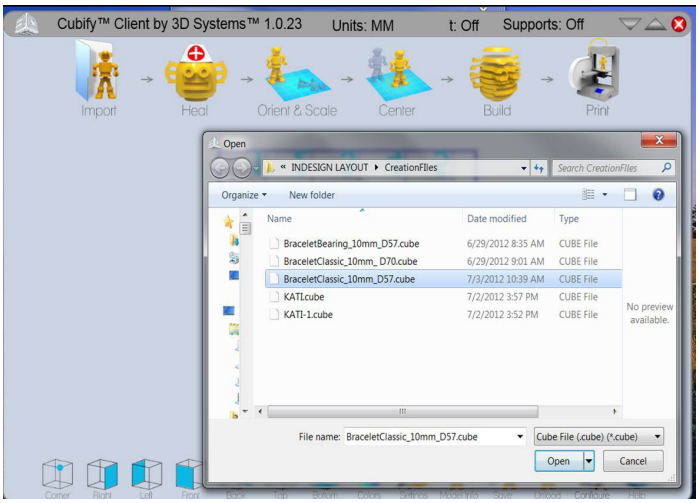


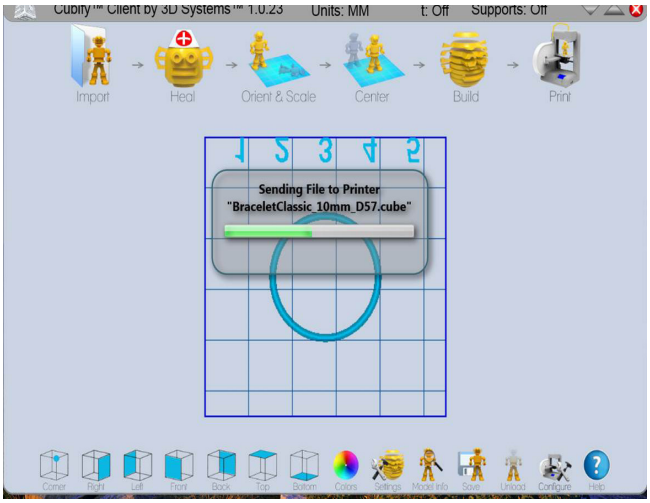
4. To prepare your creation file for printing, click on “Build” and save your creation as a .Cube file.



Printing with WI-FI Connection

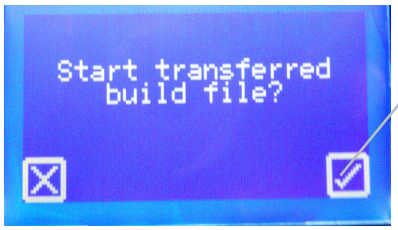
1. If have a WI-FI connection, click on “Print” and select the Cube file saved from your creation file; click on “Open” to send your file to the Cube.





2. On the Cube touchscreen, finger tap check box to start the build file or tap the **X** box to cancel.
3. The Cube will begin a ten minute heating process. During the heating process, the print tip and the print pad will reach the temperatures that have been preset by the manufacturer. Once these temperatures are reached, your creation will begin to print.

NOTE: During printing operation, please do not place a cover over your Cube. The Cube generates heat during printing and if covered, it can cause damage to the Cube.

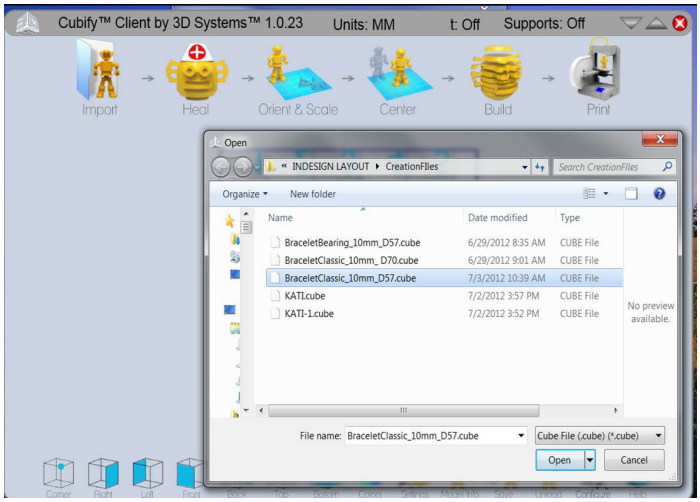


WARNING – PRINTJET NOZZLE TIP BECOMES EXTREMELY HOT DURING SET-UP AND OPERATION. DO NOT TOUCH NOZZLE.

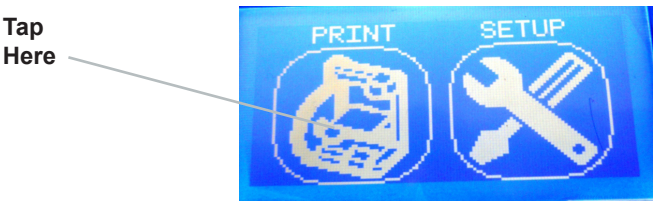
Do not change cartridge material during printing; doing so may damage the Cube.

Printing From the USB Memory Stick

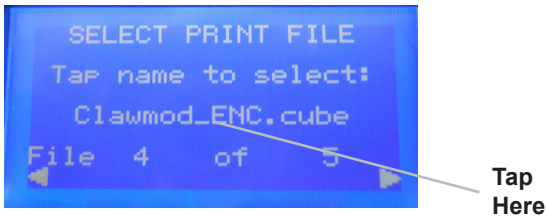
1. If you are using your USB memory stick to download your Cube file, please install the USB memory stick into the USB port on your computer. Open the file folder where your Cube file is located and save it on the USB memory stick. Remove memory stick and install it into the Cube's USB port.



2. Tap “Print” on the touchscreen and use left or right arrows until you see your Cube file displayed.



3. Tap on your .Cube file; the print touchscreen will appear showing the total time it will take to print your creation and the time left to complete it during printing. It also shows the maximum height of your creation and the current height while printing.

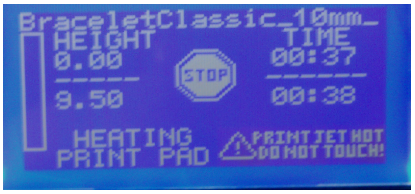


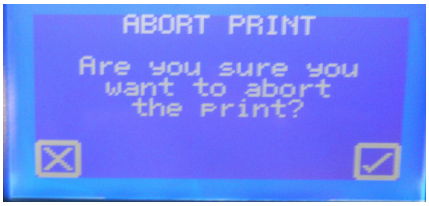
4. The Cube will begin a ten minute heating process. During the heating process, the print tip and the print pad will reach the temperatures that have been preset by the manufacturer. Once these temperatures are reached, your creation will begin to print. Once the creation is finished printing, your touch screen will display “Print Finished,” press the check box to confirm. Wait until the print pad is completely cool before removing your print.

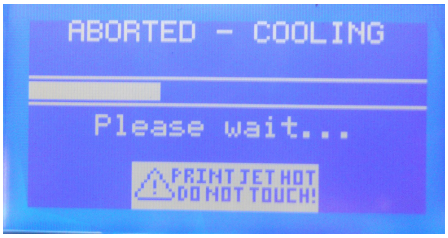
WARNING – PRINTJET NOZZLE TIP BECOMES EXTREMELY HOT DURING SET-UP AND OPERATION. DO NOT TOUCH NOZZLE.

Aborting Your Print

To abort your creation during warm up or printing, finger tap the STOP button on touchscreen. The next screen will read “Are you sure you want to abort the print?” Finger tap the check box to abort or tap the **X** box to cancel. Wait until the print tip and the print pad completely cools before touching.



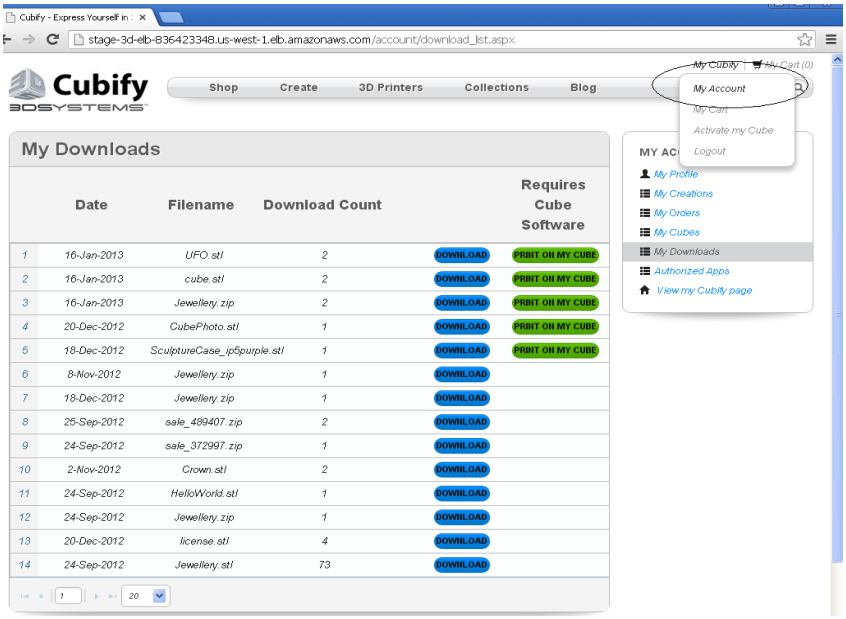




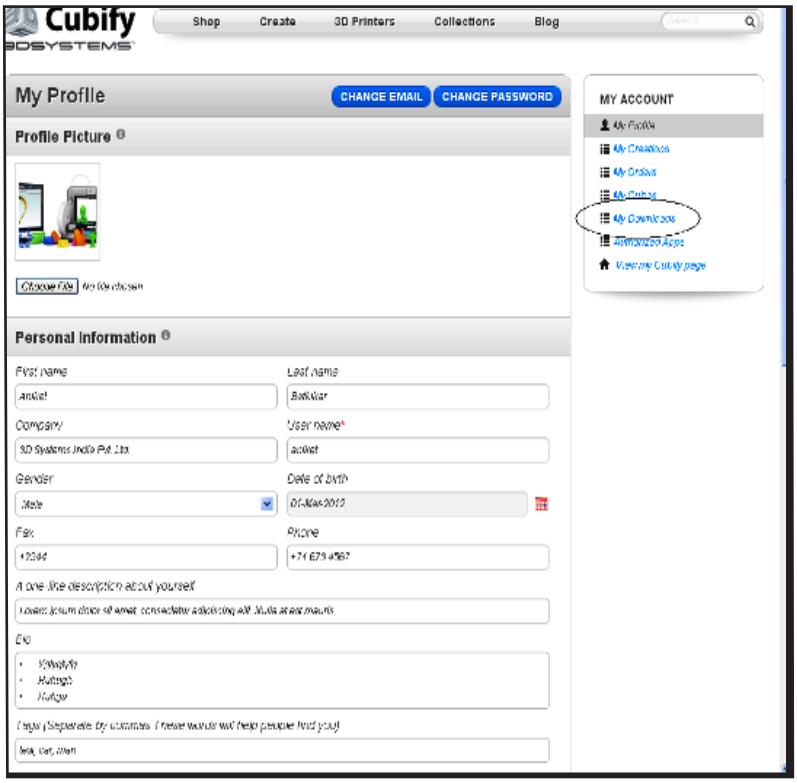
WARNING – PRINTJET NOZZLE TIP BECOMES EXTREMELY HOT DURING SET-UP AND OPERATION. DO NOT TOUCH NOZZLE.

CLOUD PRINTING FROM CUBIFY.COM

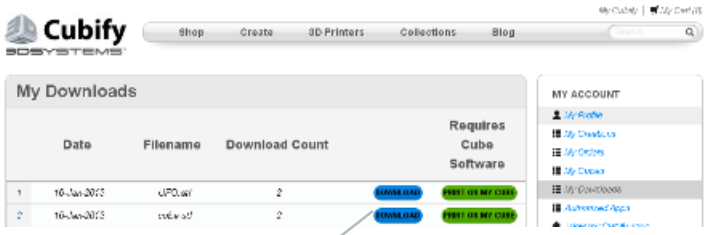
1. Click on “My Cubify” and select “My Account.”



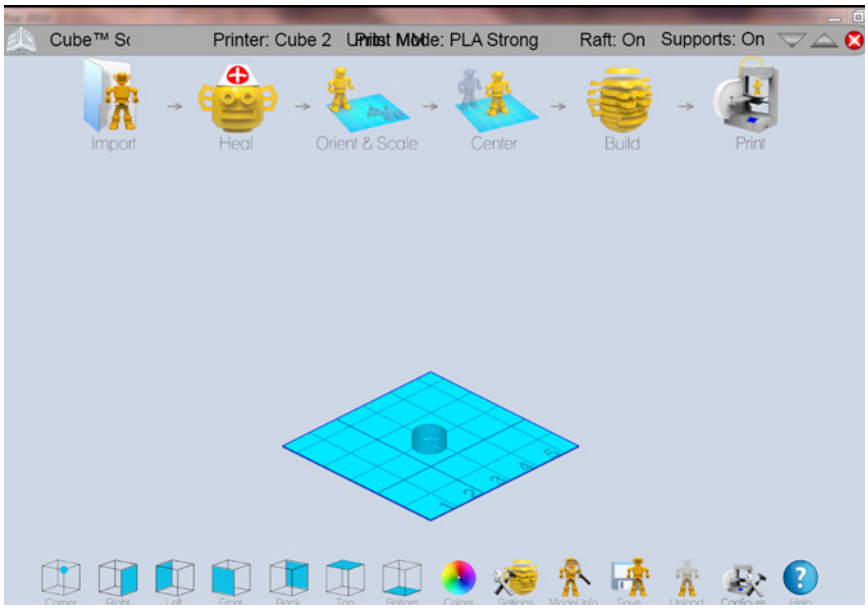
2. Click on “My Downloads.”



3. If you would like to download a file to save on your computer or print using Cube software, click on “DOWNLOAD’. The file will download to the Cube software on your computer to save your creation.



Click Here



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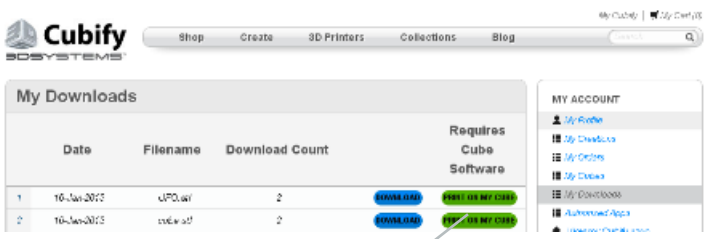
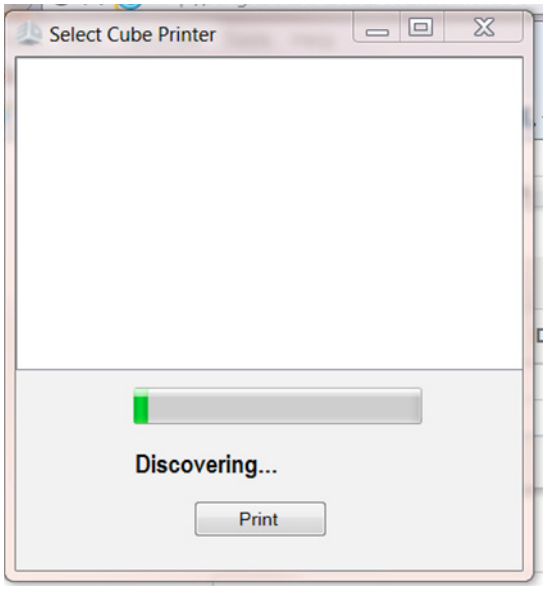
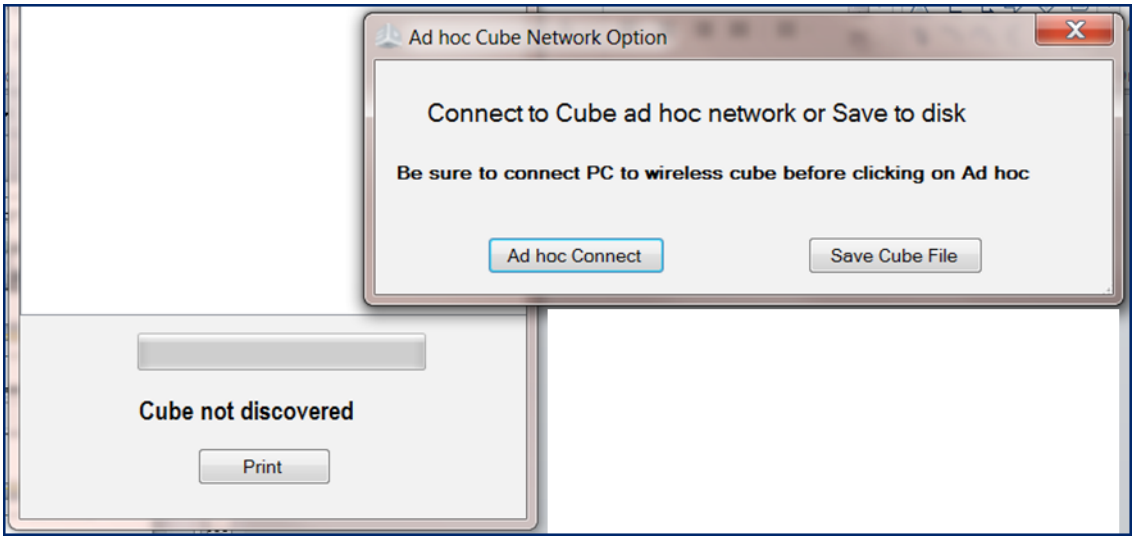
4. Your file can download directly to your Cube by clicking on “PRINT ON MY CUBE;” the Select Cube Printer screen will appear and will search for available Cube printers on your network.



Click Here



5. If a Cube was not discovered in your network, you can either save the Cube file to your computer or connect through an Ad hoc network.


Ad hoc Cube Network Option
Connect to Cube ad hoc network or Save to disk
Be sure to connect PC to wireless cube before clicking on Ad hoc
Ad hoc Connect
Save Cube File
Cube not discovered
Print

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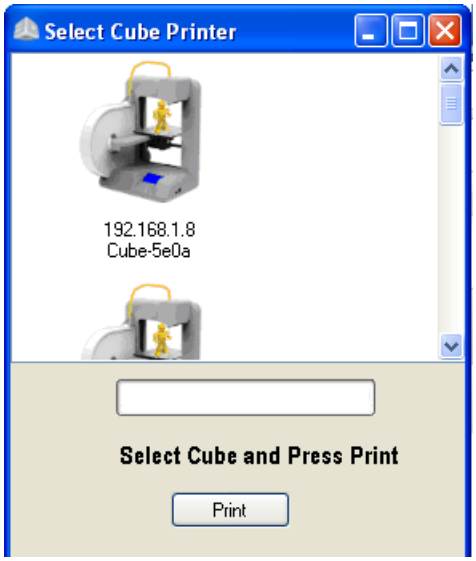
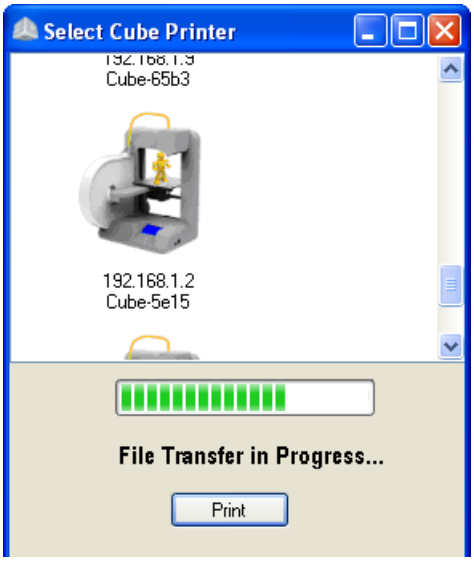
6. If a Cube is discovered in your network, click on the printer you wish to print the file and then click “Print.” The file will transfer to your Cube.



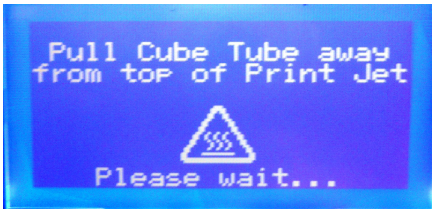


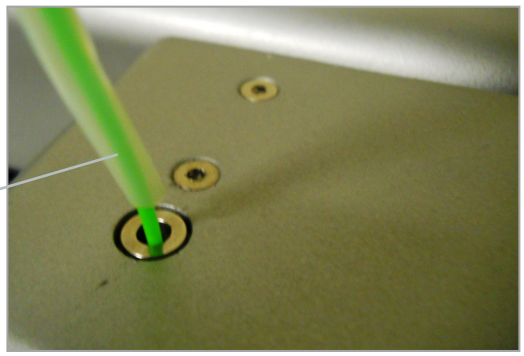
REPLACING MATERIAL CARTRIDGE

Do not change cartridge or material during printing; doing so can cause damage to your Cube.

If your material cartridge does not have enough material to complete your creation; you will need to replace your cartridge. It is important that the same color of material that is being used must be installed. Do not change to a different color of material; doing so can cause damage to your Cube. Please follow these steps to replace the cartridge.

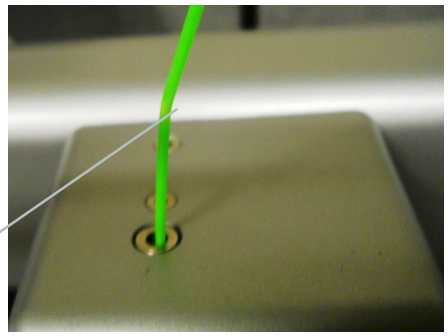
1. Pull Cube Tube away from top of print jet. Please do not pull the material out until the touch screen instructs you to do so.

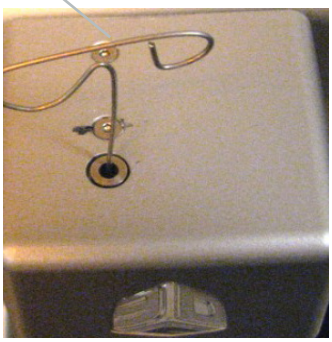




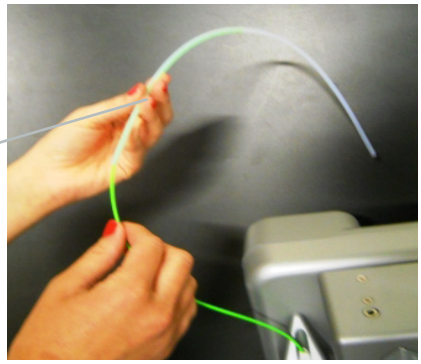
2. Pull material out of print jet and press “Next.”

NOTE: After the material is pulled out from the print jet. It may be necessary to remove material debris from the print tip that could be clogged in the print tip. Using the unclog tool, insert the tool’s point into the print jet; if debris is present, it will protrude from the print tip.





3. Remove cartridge from Cube and remove the Cube Tube from material. Replace thumb screw into cartridge to hold the unused material in place. Refer to “Material Cartridge Installation,” for instructions on how to install your new cartridge.

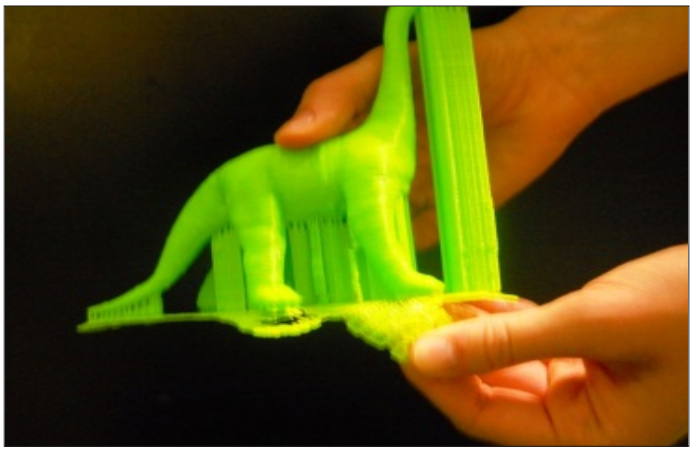


Removing your Creation From the Print Pad

- Place print pad with the creation in a container (not supplied) filled with regular warm tap water and let soak approximately five minutes or until your creation becomes free from the print pad. Clean and dry print pad before next use.
- Refer to the Cube User Guide for instructions for “Cleaning Print Pad” in Maintaining your Cube, to remove the glue from the print pad.

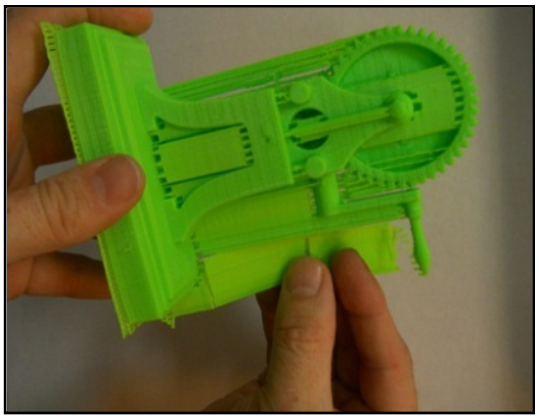
Removing Raft (If Required)

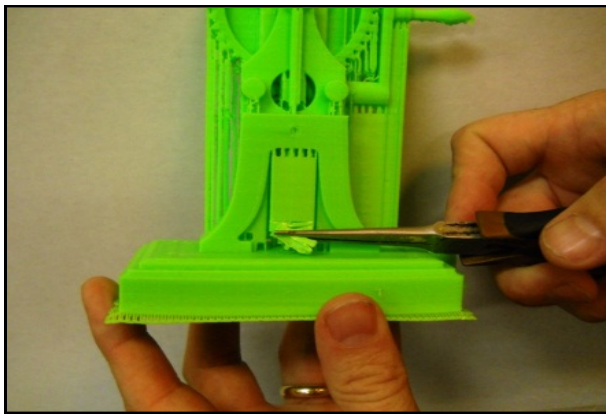
- If supports are present, use small pliers first to remove support from part. Use pliers to remove the raft away from the bottom of your creation. In places where the supports are inside your creation and are hard to get to, use little wire snips or needle nose pliers to remove the supports.



Removing Supports (If Required)

- Carefully break the supports away from your creation. In places where the supports are inside your creation and are hard to get to, use small needle nose pliers (not supplied) to remove the supports.





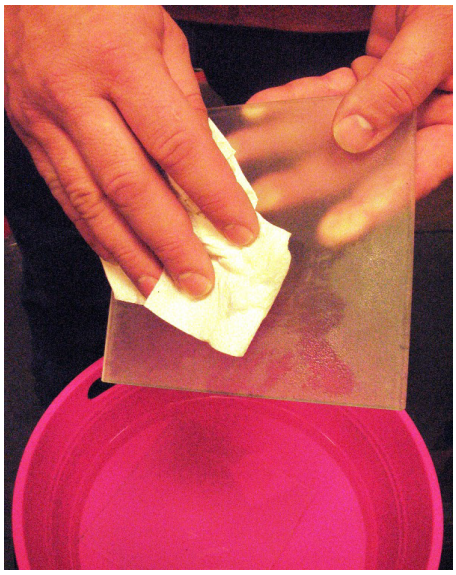
MAINTAINING YOUR Cube

Cleaning the Exterior

- Clean the Cube's exterior with a lint free cloth and water. Dampen the cloth with water and wipe the outer surfaces of any debris that is visible.

Cleaning the Print Pad

- Submerge print pad in a container filled with warm city (tap) water. Please do not use well water; it contains certain minerals that may make your creation difficult to remove from the print pad.
- Rinse pad under tap water and dry using a lint free wipe.



Cleaning the Print Tip

- Using the small pliers, pull away any plastic debris away from the nozzle tip.
- If the debris is stubborn, the nozzle may need to be heated to make the debris soft enough to remove.

WARNING – PRINTJET NOZZLE TIP BECOMES EXTREMELY HOT DURING SET-UP AND OPERATION. DO NOT TOUCH NOZZLE.

Cleaning the Touchscreen

- Wipe the touchscreen with the soft, lint-free cloth. Do not spray cleaners on the touchscreen.

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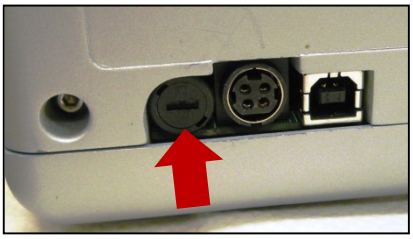
4 Amp Fuse Replacement

Caution: Before replacing the fuse, switch Cube's power off and unplug power cord.

1. 4 Amp, 250V fast blow fuse is located on the back left side of your Cube.



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2. Using a flat screwdriver, turn screwdriver counterclockwise to remove fuse from the fuse holder.

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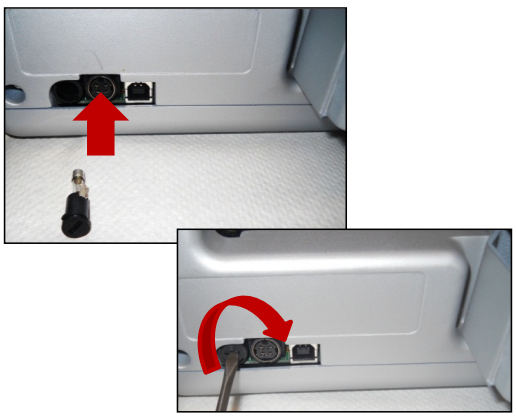
3. Using a flat screwdriver, turn screwdriver clockwise to install new fuse into the fuse holder. After new fuse is installed, plug power cord into outlet and switch power on.

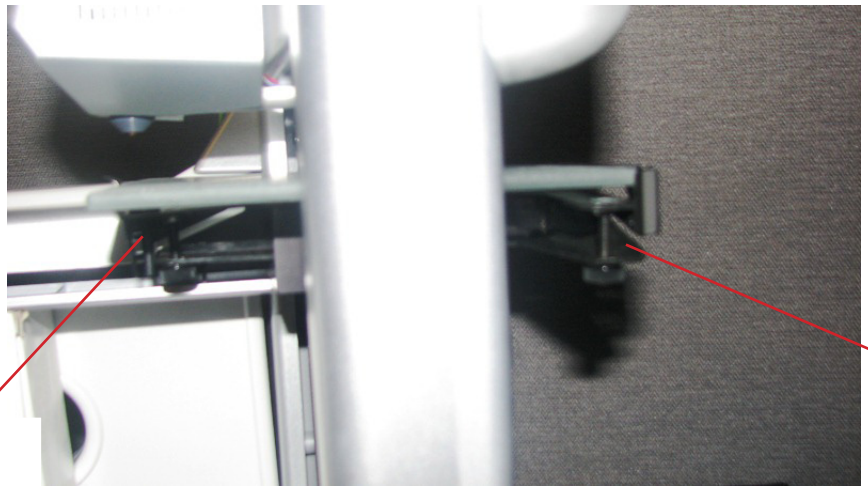


27

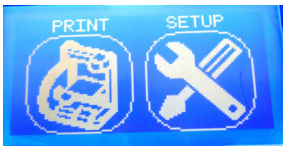
PRINT PAD PLATE LEVELING INSTRUCTIONS

Your print pad pad may become un-leveled when transporting your Cube, If this occurs, please follow these instructions to level your print pad pad for optimum creation experience.

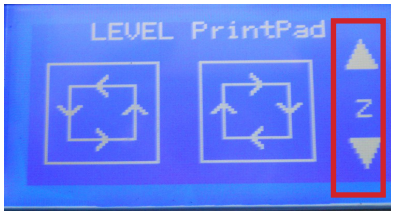
A The print pad pad can be leveled with the two adjusting bolts located underneath the front and back of the pad.



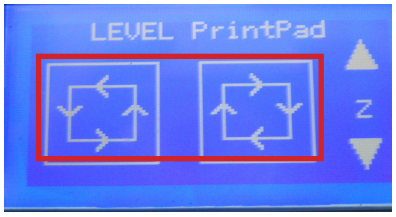
B
- Press the power button on the Cube control panel.
- Ensure print pad is properly installed on print pad pad.
- Finger tap “SETUP” on the touchscreen and scroll through the menu until “LEVEL PLATE” appears. Press LEVEL PLATE; the print pad will move up to print jet tip.

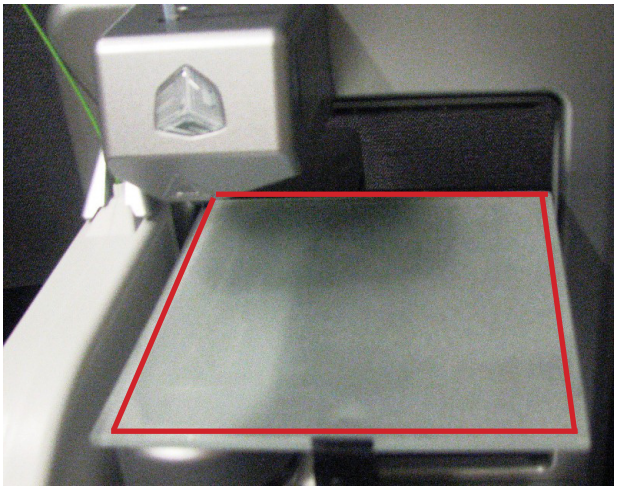


C
- Using the Up arrow, raise the print pad to the print jet tip until the tip is near the print pad but not touching it.

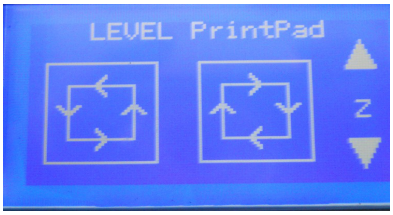


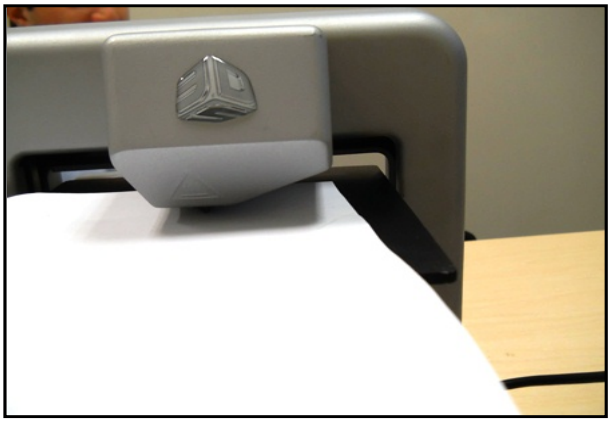
- Touch the “clockwise” and “counter-clockwise” buttons to automatically move the print jet around the four corners of the print pad. During each movement along the sides of the print pad, observe any gaps between the pad and the print jet. If there are gaps on one side of print pad and the print jet tip is barely touching the print pad on the other side, the print pad pad is not level.
- Please refer to the FRONT TO BACK or SIDE TO SIDE instructions on how to turn the adjusting knob bolts to level the pad properly.





D Fold a sheet of standard paper in half and place it between the print tip and the print pad where the adjustment needs to be made. If the paper can not slide between the print tip and print pad, tap the “down” arrow key on touchscreen.



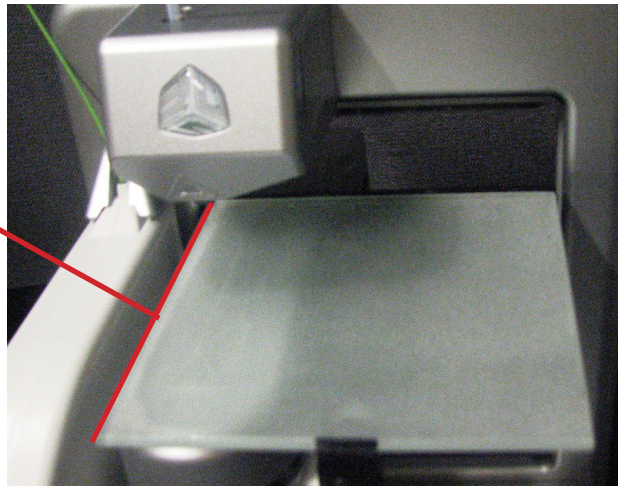


ROLL SIDE TO SIDE

If the gap between the print pad and print jet tip is at the right or left side, adjust the pad using the rear adjusting knob bolt.

EXAMPLE:

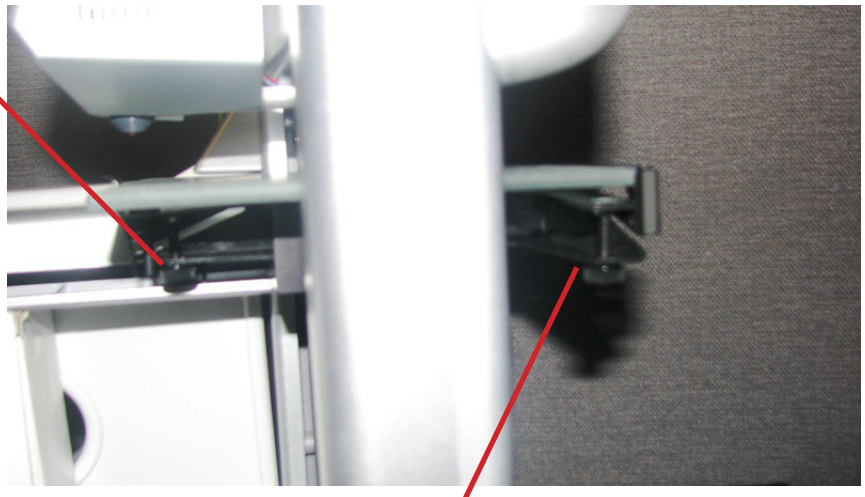
If the gap appears on the side of print pad, the pad is too low and will need to be moved up.



To Adjust:

- If the pad needs to be moved up, turn thea front djusting knob bolt clockwise to loosen and then turn the rear adjusting knob bolt clockwise. To move the pad down, turn the rear adjusting knob bolt counterclockwise.
- While adjusting, slide the paper between the print jet tip and print pad where the adjustment was needed; the paper should slide back and forth with no resistance. If resistance is felt, the pad is too high. Please repeat the adjustment.
- Once adjustments are made, tighten the adjusting knob bolts.

Turn front adjusting knob bolt clockwise to bring front of pad up.



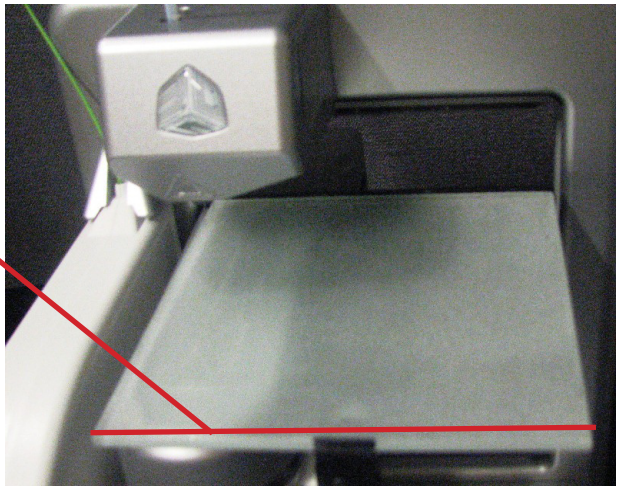
Turn adjusting knob bolt clockwise to bring right side of pad down.

TILT FRONT TO BACK

If the gap between the print pad and print jet tip is at the front or back of pad, adjust the pad using the adjusting knob bolt.

EXAMPLE:

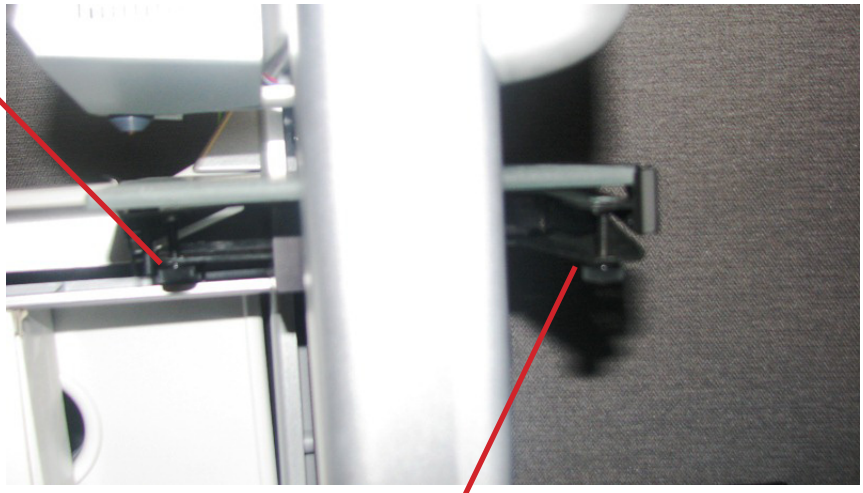
If the gap between the print jet tip and the print pad is too low, the pad is too low and will need to be moved up.



To Adjust:

- If the pad needs to be moved up, turn the front adjusting knob bolt clockwise to loosen and then turn the back adjusting knob bolt clockwise. To move the pad down, turn the back adjusting knob bolt counterclockwise.
- While adjusting, slide the paper between the print jet tip and print pad where the adjustment was needed; the paper should slide back and forth with no resistance. If resistance is felt, the pad is too high. Please repeat the adjustment.
- Once adjustments are made, tighten the adjusting knob bolts.

Turn front adjusting knob bolt clockwise to bring front of pad up.



Turn back adjusting knob bolt clockwise to bring pad down.

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